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ADDRESSES AND ARTICLES

The Prevention and Control of Venereal Diseases*

● **Dr. M. Rathnavelu, L. M. S., M. R. C. S., (Eng.), L. R. C. P. (Lond.), F. D. S. (Lond.)**

It will be interesting to note how the incidence of venereal disease is being tackled in India and abroad. In the control of communicable diseases three factors are to be considered—(1) the foci of infection (2) the susceptible groups in the population exposed to the risk of infection (3) how and under what conditions is the infection transferred from the infected to the susceptible non-infected groups.

In the majority of venereal infection the foci of infection in a community are the prostitutes and the susceptible groups are the unmarried adolescents and the infection is transmitted chiefly by sexual intercourse.

To control venereal diseases it is necessary to control or regulate prostitution and provide facilities for treatment of the infected persons and to render them non-infectious and educate the public, especially the adolescent population against the dangers of illicit extra-marital intercourse. No campaign against venereal disease can be successful without action against such social evils as prostitution and traffic in women. These are preventible diseases and with judicious care through use of prophylactic measures one can escape them. To prevent the spread of venereal diseases by interstate travel of disbanded men, the army provided that infected men be hospitalised until the acute stage of the diseases is over and the danger of transmission of infections is past.

It has been proved by statistics that 1/6 of the population has suffered from this scourge, while tuberculosis—another menace to society—which is being fought against by prominent personalities in India with great enthusiasm and energy, does not claim even half the number. The huge infantile mortality, widely prevalent sterility, frequent abortions and still births, about 20% of all blindness and deafness and 50% of imbecility can be attributed to venereal diseases. They affect practically all the organs in the body and produce degeneration of brain.

* A lecture delivered at the Madras Branch of the A. I. M. L. A., during March 1940.

Dr. Cavaillon, the Secretary-General of the International Union against the venereal peril, has written an exhaustive account of the legislations adopted by the chief countries of the world for the suppression of these plagues. The International Union is working for the co-operation of all peoples and for a combination of natural laws to fight venereal disease. Intensive education and propaganda by means of cinemas, talkies, radios, and wireless have to be done among the people concerning the dangers of venereal diseases and make them realise the importance of social hygiene so as to enable them to co-operate willingly with those who are working for the establishment of national and international defences against these scourges. Some nations adopt rigorous measures of compulsion and have penal codes of a stringent character, while others have no compulsory legislation. But there is universal agreement in raising the moral standard, especially the young, the necessity of taking complete treatment early, when infected, and to warn against promiscuous intercourse and to stop recruitment of prostitutes.

There are different legislations to stamp out these contagious and disastrous maladies in several countries. There is complete freedom in Great Britain : there are no laws of constraint, no compulsory treatment, no regulations of prostitution and no enforced certification before marriage. There is liberty in France and Belgium in all points save in regulations and control of prostitution by law. The United States of America adopt legal compulsion ; in the majority of the States, treatment is obligatory, prostitution is prohibited and marriage is regulated. Germany and Czechoslovakia before its incorporation in Reich, had laws of constraint, but did not forbid prostitution. By a campaign of education, the incidence of syphilis has been reduced by 50% in Great Britain during the last 15 years.

In U. S. S. R. medical treatment is given free and a unified, nation-wide legislation dealing with venereal diseases is in force. Intentional infection with venereal diseases is punishable by 3 years' imprisonment in reformatory labour institutions. The law further provides for compulsory treatment of those patients who refuse to undergo voluntary treatment which, however, seldom happens.

Compulsory warning, compulsory notification, compulsory investigation regarding carriers of germs, compulsory treatment and pre-nuptial certificates are the five means of reducing the incidence of venereal disease in different countries.

NOTIFICATION

Compulsory warning is meant to inform the infected persons about the contagious nature of venereal disease and to warn them as to their moral, sanitary and judicial responsibilities by a medical attendant. When the public are educated regarding its utility, they will not only tolerate notification of venereal disease, but welcome it as an essential extension of the general principle of notification. Intensive education should precede notification. Compulsory warning is legalised in Sweden, Czecho-slovakia, Japan, Germany and such a one has existed in the Danish Laws since 1906. In Scandinavian countries, America, Germany, Czecho-slavakia and Russia, notification to seek out sources of contagion and of contacts and the establishment of precautions before marriage have already been adopted. In 1918 the United States of America introduced a system of notification. The medical attendant notifies the case to the Health authority without giving the name or the address of the patient. If he fails to take complete treatment in spite of warning, when contagious, then only the doctor reveals the name and address of the delinquent to the Commissioner of Health to deal with him officially. The International Union approves of this indirect method of notification.

COMPULSORY TREATMENT

Compulsory treatment is closely associated with compulsory notification. Great care has to be exercised in the compulsory investigation of the sources of the disease, and of subsequent contacts. Compulsory investigation is adopted in Sweden, some of the American states, Czecho-Slovakia, Germany and with great stringency in Russia. In France, the law does not permit inquiry about sources of infection save in the army.

PRE-NUPTIAL CERTIFICATE

In American States pre-nuptial certificate was adopted as a law. In certain States the law prohibits marriage of a venereal patient until a certificate of recovery is produced or a declaration on oath concerning health. In Germany, one who marries while infectious, not informing his fiancee, is liable to imprisonment. In Sweden, Norway and Denmark the pre-nuptial certificate is required. There are active propagandists in Holland. In Vienna there is a Municipal Bureau for pre-nuptial consultation. There are some clinics which undertake the duty in France. The International Union is in favour of compulsory pre-nuptial certificate.

REGULATION OF PROSTITUTION

The regulative system of prostitution is in force in France, Belgium, the Argentine, Equador, Austria-Hungary, Paraguay, Italy, Spain, Portugal, Japan, Egypt, etc. The number of women who are regulated and controlled is very small in relation to those who are free and clandestine. In every town out of 100 registered, there are 3000 who are not registered. Prostitution encourages the growth of clandestinism and provides a screen for it. The International Union is in favour of total abolition. Recently France and Germany adopted abolition of prostitution. In America prohibition has taken the place of registration and prostitution is forbidden and under this system the prostitute is arrested and if found guilty, she is imprisoned. If she is diseased, she is treated in a special hospital but is only released after taking her full period of treatment. As a result of this there is a considerable fall of prostitution. The International Union is in favour of social hygiene which provides a fairly good results. The maintenance of physical health of the people is not only a duty of the State but also the duty of the individual to the State. In countries where there is compulsory notification and treatment, there are penalties for people who infect others, knowing that they are in a contagious condition.

AN INTERNATIONAL ORGANIZATION

On 27th January 1923 the International Union was established by the English, Belgian, French, Spanish, Japan and Swiss delegates with representatives from the League of Red Cross Societies. Gradually most of the nations joined the Union and today it has members from 44 different countries from Europe, Asia, Africa, North, South and Central America and Australia. The Union of Russian Soviet Republics, Turkey and Persia have not joined as members. The Union works in close alliance with the venereal disease clinics from the International standpoint as regards prophylactic measures, propaganda, treatment and legislation.

Coming nearer home, the Government of Straits Settlements adopted the recommendation of the Advisory Committee on Social Hygiene in 1925 by making the progressive policy of closing 'known' brothels, making brothel-keeping illegal and extending and amplifying the free and confidential facilities for the treatment of venereal diseases started in 1923. Singapore has satisfactorily worked the British policy of dealing with this branch of Public Health.

In India public interest in the prevention of venereal diseases was stimulated by the visit during 1927-28 of delegates from the British Social Hygiene Council in response to an invitation from the Government of Bombay, Madras, Bengal and Burma. They submitted a report making a series of important recommendations covering all the varied aspects of the venereal diseases problem and these have been of great advantage to different medical and health administrators.

In Madras Presidency, where a considerable degree of organised effort has since been made, an up-to-date venereal diseases department has been located in a new and well-equipped building in the Madras General Hospital and placed in charge of a Venereal Specialist. Medical under-graduates and post graduates are given a course of training for 3 months in venereal diseases. In addition to this central institution, 32 venereal clinics are working for the past few years in different parts of the province. In other parts of the country, no general compaign against venereal diseases has so far been planned.

In India the problem is complicated by the general illiteracy of the population and by the fact that in rural areas particularly, medical aid is not easily available. No campaign against venereal disease can be successful without action against such social evils as prostitution and traffic in women. In India, these questions are complicated by various social customs and religious practices, as Devadasi-problem, but those need not be a serious problem once public opinion is roused to the necessity for tackling it which is not the least of the many of the public health problems awaiting solution.

The Suppression of Immoral Traffic Act was passed in Bengal, Bombay, Burma, Madras, United Provinces and some Indian States as Mysore. The Madras Immoral Traffic Act was brought into force on 1st April 1932. By closing the brothel houses under the Act, the main source of venereal infection is eliminated. Recently one Rescue Home was started in Madras for the protection of girls rescued from the house of ill-fame. If compulsory warning, compulsory notification, compulsory investigation regarding carriers of germs, compulsory treatment and pre-nuptial certificates are introduced in Madras as in other countries, the incidence of venereal disease will be reduced to a minimum. Intensive education and propaganda by means of cinemas, talkies, and radios should be done among the people concerning the dangers of venereal diseases and make them realise the importance of social hygiene. Venereal prophylaxis should be given at the Venereal Diseases Centres. For Syphilis, inunction of the genitals with a 33½% per cent calomel ointment and for gonorrhœa, irrigation of urethra with a 2% solution of protargol or 10% solution of argyrol after urination are recommended. Venereal diseases treatment centres should be established in all municipalities of large towns and in industrial centres. The public should be warned against treatment by quacks. Sex hygiene should be taught in schools for boys and girls.

Any organisation against venereal diseases to be effective should be based upon the following points as it is in Denmark :—

1. The provision of free treatment to all venereal patients irrespective of the economic condition.
2. Obligatory treatment of all infective cases.
3. Punishment for transmission of venereal diseases; if anybody, who knows himself to be infected with the venereal disease has sexual intercourse, he should be liable to be sentenced to prison.

Venereal diseases are spread through a personal act of two persons in which public health is endangered, unlike in other infection where an inanimate object such as water and food or an insect on the one hand and a susceptible person on the other, are concerned in the transmission of the infection. The control of the former, of necessity, implies legal control and all other methods will prove ineffective or only partially successful.

Contraception and Medical Profession

● **Dr. B. L. Raina, M. B. B. S. (Bombay), Civil Hospital, Ujjain, C. I.**

The decision of the Elders in the Council of State on the Hon. Sapru's resolution dated 28th March, 1940, regarding establishment of Birth Control clinics will be heartily welcomed by the medical profession throughout India.

It is about one hundred and thirty seven years when Rev. Thomas Malthus set people thinking by observing that the population increases in geometrical ratio, whereas, means of subsistence never increase beyond arithmetical ratio. The mechanised mass production started a storm of opposition and gave birth to Neo-Malthusians. Isolated efforts in the direction of limitation of families continued, but not with much success till Sigmund Freud appeared on the scene who with his plain, outspoken and convincing utterances revolutionised the entire attitude of the people towards sex problem. This perhaps provided much needed stimulus to welfare workers like Charles Bradlaugh and Annie Besant who stepped on the platform to openly preach contraception. A state is now reached that it has become almost impossible to suppress sex knowledge from the people.

Anyhow the birth-control teaching has remained and remains still to a large extent in the hands of non-medical men. Nevertheless society is indebted to them for revealing knowledge which was heretofore a sealed book.

It is imperative on the part of the medical profession to take up this work in right earnest. The problem today is not to convince people as to the necessity of birth control since this ground has been covered by many an enthusiasts already. The real problem is to give right information and correct guidance, a work which medical profession alone is competent to do in as much as patients come to them for advice and assistance.

Every serious minded medical practitioner should realise the hard facts of life, the economic condition of the country, 400,000,000 population and the high rate of mortality (1.4 million infants and 150,000 mothers die per year). There are no two opinions any more that early marriage, early consummation and repeated pregnancies are important contributory factors to these blood stained figures of maternal and infantile deaths. Prof. Dugald Baird, Regus Professor of Midwifery in the University of Aberdeen submitting results of 1000 maternal deaths stated that "out of 253 deaths 217 women died who had six or more pregnancies. Surely five children are as many as a woman deserves or can cope with. Further in 10% of the fatal cases it was almost certain, from a study of the previous history, that the mother would die should any pregnancy supervene."

The report of medical officer working in Hawai is very interesting where, after contraceptive methods were introduced, infant mortality dropped from 154·3 to 12·3.

It pains me to record that many people both in the profession as well as outside it, still labour under the delusion that birth control organisations are but associations that promote free and indiscriminate contact between opposite sexes and thus provide scope for unbridled licence or ephemeral love episode as it may be called. It is very likely that "in doing a great good we may at times unconsciously do a little bit of harm if the methods get into the wrong hands." In these days literature on any subject is so copious that it is more advisable to point out even to the wrong doer the right path rather than to let him go adrift. The often repeated alarmist cry that teaching of birth-control would spread immorality is far from true. The experiment in Holland (Alatt Jacob), a country where every grown up person knows how to prevent conception or at least where to get the necessary instruction, this knowledge has not increased immorality. Any unprejudiced observer of social conditions must recognise that Holland is one of the healthiest and most moral countries in Europe. There is no licensed prostitution brothels which are forbidden by law and are actually non-existent, and the incidence of venereal disease is low and illegitimacy too is very low.

War enthusiasts harp on the old tune that contraception is synonymous with racial suicide. The cannon fodder desideratum has no place in any reasonably scientific discussion. It may, however, be pointed out that even for the purpose of recruitment healthy material is required. In the last war (1914) it was observed by an eminent military expert that a large number of recruits were not only worthless but were a regular drag on the military wheel.

The puritan might very well suggest abstinence as the ideal path. Abstinence is commendable, but it is hardly practical advice to majority of people.

There are not a few who seek safety in "safe periods" and coitus interruptus. Seigal asserted on the basis of his selected cases that the fertility curve rises to the highest point on the 6th day and stands at that level till the 12th, then climbs down from 12th to 21st, and reaches zero level on the 22nd where it remains till the 28th day. Even assuming that this process is absolutely correct, there can yet be no safety as a few sperm out of 300,000,000 can yet lie dormant during this period (21st to 28th) and can become active as soon as the safety period is over. Hence all that can be said is that "perhaps every woman has a safe period, but as a method of contraception it cannot be recommended."

Coitus interruptus does not need much comment. It is obvious that interruption in consummation of the act interferes with the orgasm, and repeated such interruptions lead to congestion of ovaries and subsequent pelvic pains. Supposing she escapes ovarian congestion and outwits the psychoneurotic group, still there remains the possibility of a few sperms coming out in the pre-ejaculate which can crawl up and reach the ovum.

There is a group of medical men who believe that there is no reliable contraceptive method today. This idea again is erroneous. The statistical analysis of English and Scottish clinics given by Helen Wright should convince the sceptics. In a very large series there were 1 to 2% accountable failures, that is those for which no cause could be found. This was the state of affairs 6 years ago.

Failures are due to the methods picked up from stray advertisements.

It is agreed that reliance can be placed on those contraceptives only which provide a barrier between semen and cervix. The barrier can be made complete by a contraceptive ointment smeared round the rim. It may be supplemented either by a soluble chemical to kill the sperm or by a douche at the time of removal. The barrier of choice is a diaphragm pessary. The success in using the pessary depends mainly on selecting the right size and fitting it rightly. The correct size can be ascertained only after vaginal examination. The length of the vagina is measured with the tip of the finger in the posterior fornix behind, and pubic bone in front. This length measured in millimeter scale is the number of the pessary. It can be put 2—3 hours before coitus and removed next morning. Pessaries are not to be worn more than 16 hours. The method of putting a pessary should be exact. It is to be held first with index finger hooking in the cavity, with hollow upwards, and introduced along the floor of the vagina pushing it towards the rectum till it reaches posterior fornix—the last part should be put well behind the pubic bone. The patient should always be made to feel her cervix before and after fitting the pessary. I prefer to explain them over a rubber model in addition.

A cheaper substitute is a sponge about 4" square and 3/4" thick and half its size for nullipara. Sponges wrung out in vinegar solution (a teaspoonful in a cupful of of water) serves the purpose. Contraceptive pastes have been prepared under the auspices of the Family Planning Association, London, and Family Planning Society, Bombay, which can be used with the sponge. The paste prepared by the latter has not yet been put for use in the clinics and is awaiting chemical analyser's report. It is expected to be very cheap and strongly spermicidal.

Sheaths or condoms are very popular, and if used after testing (i.e. by blowing in air and putting them in water to test if air escapes or not) are quite reliable. With every sheath, 1/2" should be allowed to overlap so that it can hold the discharge. Washable sheaths can be used for 3 months and be preferably kept unrolled in French chalk. Here again a combination of methods is recommended. It is more safe if a contraceptive paste is used in addition.

Chemical contraceptives : Attempts have been made to prepare pastes, tablets, jellies and powders which can kill sperms without injuring the vaginal mucosa. Various chemicals are used viz., quinine sulphate, potassium borotartrate, zinc sulphocarbonate, etc. Dr. Baker with his co-workers carried on a research under a grant from the Birth-Control Investigation Committee in the Sir William Duum School of Pathology, Oxford. During research, propriety products were tried at the standard concentration(s) of one product to 6 C. C. of sperm suspension, it being the quantity usually present in vagina after coitus. Sperms were examined at 5 and 30 minutes in both alkali and acid medium. A product which killed at S was tried at S/2, S/4 etc.; sperms were examined at 2, 5, 15 30, 60, 120, 180 minutes. In most of the cases sperms were active even after 180 minutes. Dr. Carlton carried out pathological tests of the various preparation on bitches. Some products were found to have done gross damage to vaginal mucosa of experimental animals.

These researches revealed that quinine and chinsol act as local irritants and quinine if absorbed from vagina may cause toxic symptoms; foaming tablets cannot be recommended except in special cases, as they depend for solution upon the moisture in vagina, and pastes with lactic acid should be discarded as their spermicidal value is low.

Further the experiments led to the discovery of phenyl mercuric acetate which was found harmless and yet the strongest spermicide, having a killing concentration of 1 : 102400 in acid and 1 : 25600 in alkaline medium i. e. 512 times more spermicidal than quinine bisulphate in acid and 128 times in alkaline medium. Two products were prepared : gels and pastes.—Gels in gelatine base with triethanolamine to make it alkaline, glyceryl monoricinolcate to render it diffusible and methyl-b-hydroxy benzoate as germcide. These are highly spermicidal and harmless but are not suitable for climate of our country.

The same made into paste in arrowroot with less amount of gelatine has been prepared for the tropics and is being given clinical trials at present. It can be used smeared on a pessary or sponge. The registered name of the product, as suggested by Dr. Newfield, is Volpar, meaning voluntary parenthood. The writer is making a clinical trial with this paste and hopes to submit promising results before the end of the year.

Operative measures : In certain cases operative measures may be adopted.

In the male, about 2" of the vas is resected. It has been reported that at times regeneration of vas occurs along its sheath. Strode obviates this possibility by bringing out the distal cut end and fixing it under the skin, thus two ends remain in different anatomical planes.

In woman it can be done through vagina. Many gynelocologists of experience consider vaginal route as much easier, simpler and safer. An incision is made in the anterior vaginal wall which exposes the vesico-uterine fold which is also incised exposing the tubes which one by one is brought down with a long forceps and their cornum ends excised between ligatures, and the layers closed as usual.

In both the above repair operation can be done if required.

Anastomosis of the vas is easy to understand. In female special skill is required. Dr. V. B. Green Armytage describes an interesting case in which previously sterilisation was done. He first passed a probe in the uterus. Abdomen was opened as usual, proximal ends of the tube excised and Japanese silkworm gut passed through them. The fundus was incised in a V-shaped manner, and each tube laid in the groove and the wall of the tube streched to the uterus, the probe is withdrawn and along with it the silk-worn gut. The fundus incision was closed. The silk worm was removed on the 12th day, the woman became pregnant after 9 months and later delivered a healthy baby.

Before closing I must utter my usual words of caution. Birth-control movement does not aim at indiscriminate contraception. It is not a wise policy to postpone first pregnancy for long, nor to condemn one's child to a solitary life without a brother or sister to play with. Given the necessary health and economic condition let individuals have children and have them in plenty.

Attempts at establishing separate birth-control clinics have not met with much success in India. The right place to give contraceptive advice is a maternity home of a welfare centre where the mothers have been going and are familiar with attending doctor who gives the advice to the patient whenever it is considered necessary.

It is hoped that birth-control will no more be looked upon with suspicion and that contraceptive teaching will be taken up soon by organisations and agencies already imparting health advice to the people with right attitude of mind.

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Modern Treatment of Filariasis

• **A. Viswanathan, L. M. P., Madras**

Although the carrier *Culex Fatigans* is ubiquitous, yet the incidence of filaria is geographically limited to the coastal plains of India and the areas traversed by big rivers except the Indus. This is because certain conditions are necessary for the successful transmission of filaria from man to *culex* mosquito and vice-versa. These conditions are, an optimum degree of atmospheric temperature and humidity, and a heavy rainfall, which are necessary not only for the breeding of *Culex* but also for making it an effective vector of filarial infection. The rate of incidence depends on the length of time during which these favourable conditions continue to operate in unison. Thus Acton, Sundara Rao and Iyengar (1930)[1] make out three filarial zones: (1) The hyper-endemic zone is characterized by an atmospheric temperature ranging between 80°—90° F., a percentage of humidity between 60°—80°, and a heavy rainfall. In this zone these conditions operate throughout the year resulting in a heavy infection of the mosquito and the human population. Cochin is a typical instance of this zone, and is the place in India with the heaviest filarial incidence. (2) The moderately endemic zone is one where the above conditions vary and do not often correspond, nor continue throughout the year. The infection among the population is therefore comparatively less. So also its incidence. Calcutta and east coast of Madras belong to this category. (3) The slightly endemic zone is one where there is further reduction in the correspondence of these favourable factors. The infection among the population is more or less sporadic, and the incidence of disease very low. Allahabad falls under this category. In the hyper-endemic zone the microfilaria rate among the population is about 20% or a little over. In the moderately endemic zone, it is about 10% but below 20%. In the slightly endemic area it is below 10%.

FILARIAL INCIDENCE IN RELATION TO TREATMENT

A study of filarial incidence is useful even from the point of view of treatment, because the manifestations of filaria vary according to the zones of its prevalence. Thus in the hyper-endemic zone there is a preponderance of elephantiasis over hydrocele or chylocele. On the other hand in a moderately endemic area there is a preponderance of lesions arising out of obstruction of the deeper aortic glands. In a slightly endemic area, the patient may suffer from no more than periodical attacks of fever, often mistaken for malaria, and completly escapes from the uglier manifestations of the disease. More often than not he is a symptomless carrier. These differences in the filarial manifestations are due to (1) duration of exposure to infection, (2) degree of obstruction to lymphatic drainage, (3) the survival or otherwise of the sexually matured adult filaria and (4) the supervention of secondary infection. Treatment of filaria, therefore, means treatment of its various manifestations such as (1) elephantiasis of legs, arms and/or genitals, (2) lymphangitis of legs, arms and/or genitals, (3) lymph scrotum, (4) lymph varices, (5) chyluria, (6) hydrocele, (7) orchitis, (8) funiculitis, (9) adenitis, (10) filarial urticaria, (11) filarial cysts, (12) filarial abscess. A knowledge of the specific pathology of each of these conditions is essential for discriminative treatment, as otherwise we will be floundering without aim and precision.

PROBLEMS AND PRINCIPLES OF TREATMENT IN FILARIA

If we can have a drug like quinine which kills malarial parasites with almost absolute certainty, the treatment of filaria would be simple enough whatever may be its manifestations. The fact that the adult filaria, which is the villain of the piece, fortifies itself in the impregnable fastness of thoracic duct and other deeper main abdominal lymphatics makes the question of specific drug therapy absolutely futile. The adult female filaria with its inseparable male partner, fecundate in these inaccessible regions and pour into the bloodstream myriads of sheathed microfilaria. The to-and-fro movement of these young and later, immature filarial parasites in the lymphatic circulation produce a state of chronic lymphatic irritation, ending often times in relative degrees of total or partial lymphatic obstruction. Elephantiasis is the result of this obstruction to lymphatic drainage in the superficial lymphatic glands, such as the inguinal and the axillary. If the blockage is near the juxta-aortic glands hydrocele results. If it is near the pre-aortic glands the flow of chyle from the intestines to the receptaculum chyli is diverted, through the juxta-aortic glands, to the testicular lymphatics resulting in chyluria. Where the adult filaria or immature larva find the proximal obstruction is

[1] *Ind. Med. Gaz.*, LXV., 1930, p. 620

complete there is an aberrant migration of the worm into the distal lymph spaces giving rise to fugitive swellings and abscesses. Where there is a severe filarial toxaemia, which is said to be developed at the time of the laying of the embryo, there may be urticaria, headache, migraine and more commonly rise of temperature. All these are characterised by periodicity. But so long as there is no obstruction to the movements of the worm in all its growth and development, so long as there is no continuous re-infection and so long as there is no secondary infection by streptococcus, and less usually staphylococci, fever and obstructive lesions are totally absent, and only a chance examination of the patient's blood may reveal micro-filaria in the peripheral blood. The problems in filarial treatment may therefore be put thus:

1. Is it possible to attack the adult filaria in the deeper lymphatics?
2. Is it possible to check lymphatic irritation and obstruction?

And since the essential pathology of filariasis is of both helminthic and bacterial inflammation and consequent obstruction to lymph flow the vital principles in treatment are to attack the offending helminth at its habitat, and to prevent or to combat the supervention of bacterial infection.

ATTACK OF THE ADULT FILARIA

Numerous have been the drugs that were, and are being tried with a view to kill the parent worm. The successive reports of the Calcutta School of Tropical Medicine give a list of drugs which were tried without appreciable effects. The rough criterion of cure was taken to be low micro-filarial count. None of the drugs employed satisfied even this criterion. Fouadin (Bayer), a trivalent compound of antimony, was tried at the Calcutta School and reported upon as follows[2]:—

1. There is a general decrease in the number of embryos in the blood after a course of Foaudin injections particularly where the number of embryos in the general circulation is small.
2. It has no curative action on filarial diseases.
3. In cases of recurring lymphangitis there is a temporary suppression of these attacks.
4. In some cases there is improvement in health and weight.

Arsenic preparations in the form of Neo-Salvarsan and the like are equally futile.

Let us recognise the truth that there is yet no specific for filaria, and not be allured by proprietory blandishments of filarial specifics The chances for a 'specific' drug will be when we find one which will reach the thoracic duct, and circulate in the deeper lymphatics in a concentration strong enough to be lethal to the adult filaria in those inaccessible regions.

Perhaps, as in other mosquito communicable diseases, anti-filarial measures may be the primary means of its successful eradication. Its limited geographical incidence may make the anti-filarial measures less formidable and costly than anti-malarial measures.

PREVENTION AND ATTACK OF SECONDARY INFECTION

The role which the secondary infection plays in filariasis is unfortunately very tardily recognised by the practitioners. Half the battle against the depradations of filaria is won, if in a filaria patient secondary infection is prevented entry or eradicated when present. Whenever he suffers from acute lymphangitis, either of the extremities or the genitals and their appendages, it is an indication not of filarial mischief but of bacterial assault. Bacteria, usually hæmolytic streptococci, and less frequently staphylococci and other pyogenic organisms, reach, from some septic focus in the body, the already chronically inflamed glands through the blood stream, hasten the obstruction to lymphatic drainage and give rise to bouts of fever, cellulitis, peri-adenitis, and acute lymphangitis. Acton and Sundar Rao (1929)[3] have found from a study of the out-patient cases at the Calcutta School of Tropical Medicine that 95% of the total admissions for this disease belong to this category. The septic foci may be from a traumatic lesion, a tinea infection, pyrrhoea alveolaris, caries of the teeth, peri-adentitis, septic tonsils or intestinal ulceration. Identical organisms can, as a rule, be cultured from the blood, proving once again that the acute exacerbations of the lesions is due to the super-imposition of bacteria in lymphatic areas devitalised by chronic filarial inflammation. The nature of clinical manifestations depend on the site of bacterial invasion and on the species of bacteria involved. Streptococcal invasion of the retroperitoneal lymph channels gives rise to the so-called filarial colic, undiagnosable as such and often ending fatally. Invasion of the external iliac or common iliac set of glands gives rise to a severe colicky pain in the right or left iliac fossa. Invasion of the peri-renal lymphatics gives rise to severe renal colic. Invasion of the lymphatics of the spermatic cord sets up acute funiculitis or acute hydrocele. Streptococci may enter the elephantoid skin and cause a severe, often fatal, cellulitis. Staphylococcal invasion of the lymphatic glands, say, the inguinal or the femoral where already the immature filariæ are held up and buried, may give rise to an acute or subacute inflammation of that particular gland leading, though less often, to abscess formation. If either the strepto or the staphylococcus chooses to work its mischief in the lymph channels of the extremities—already in a state of endothelial proliferation due to filarial infection—the patient gets an attack of acute lymphangitis. This is severe if due to streptococci. Recurrent attacks of acute lymphangitis completely block the lymphatic drainage, increase the œdema, hasten the fibrosis of the skin, make it dense, hard and dry and thus produce the typical elephantoid skin.

Filarial infection is essentially a lymphatic infection and a patient with a widespread chronic inflammation of the lymphatic system is quickly and easily vulnerable to secondary infection. These factors should not be ignored in the treatment of filarial manifestations.

So, the first task in the treatment is to trace the septic foci and eradicate them. Often the septic focus cannot be traced. In such cases, and even otherwise, the writer has always made it a point to immunise the patient by prophylactic injections of polyvalent bacterial vaccines. Two or three courses are repeated every year or two or three years. The so-called "filarial vaccine" which is made up of arsenic & T.A.B. is usually intended to obtain such immunity. But it has been found by the writer to be more useful in sub-acute and mild lymphangitis. No reliance should be placed either upon the polyvalent bacterial or filarial vaccine in acute attacks of cellulitis and lymphangitis. Intravenous polyvalent and combined strepto and staphylococcal serum should be administered in good doses, subject to precautions against serum susceptibility. Usually 60 c.c. within 48 hours brings down the fever and inflammation almost like magic. Since the acute and fulminating symptoms in filaria are wholly due to secondary infection the serum can be given in any of the protein manifestations, already described—acute hydrocele, acute orchitis, acute funiculitis, acute lymphangitis of any part of the extremities, and acute cellulitis of the skin. The writer has treated many such cases almost without any failure.

As an alternative to serum, sulphanilamide, of late, has been tried with success at the Calcutta Tropical School of Medicine. Of the preparations of sulphanilamide M & B 693 has been recommended by this School. The writer has no experience with this drug in this disease, but since it has become the topical treatment for streptococcal infection, the drug is worth a more extensive trial. Perhaps combined serum and chemotherapy may ensure better results than when one or the other is given singly. While vaccines and sera would certainly counteract bacterial inflammation, they have practically no effect on the chronic fibrotic œdema of filariasis.

SURGICAL TREATMENT

Surgical treatment of filariasis arises when elephantiasis becomes a deformity and a burden to the patient, and when varicocele and hydrocele cause discomfort to him.

Lymphangio-plasty is an operation by which linear pieces of cat-gut are introduced in the skin with a view to form new lymphatic channels. This operation ends always in failure and has been given up.

Multiple incisions over the elephantoid skin are made by some surgeons, but the danger of secondary infection is so great that it is not worth while.

Elephantoid scrotum, the commonest manifestation, is treated by removing the whole scrotal tissue, burying the testes on the medial side of the thigh, and grafting healthy skin over denuded parts. This is being successfully done by the surgeons of our country. The patients prefer this mutilating operation rather than to drag the scrotum like a wheel-barrow.

Filarial varicocele and hydrocele are dealt with in the usual surgical manner.

If the orchitis is advanced and has caused the destruction of the testes, it is better to castrate them. The testicular degeneration, if any, will be evident only during the course of hydrocele operation. It is therefore obvious that it should not be presumed merely on the strength of the presence of chronic orchitis, and the operation undertaken non-challantly.

GENERAL SUMMARY

Since the adult filaria couple are safely entrenched in the impregnable fastness of thoracic duct and deeper lymphatics, and since mere destruction of the peripherally circulating micro-filaria is of no avail, the number of drugs tried have all been a failure. Fouadin (Bayer) may alleviate certain symptoms, but it is by no means a specific. So it is the case with other antimony preparations. But they may be tried, trusting in luck rather than in its specificity.

Since *all* the acute manifestations of filariasis are due to secondary infection, appropriate

[2] Annual report of the Calcutta School of Tropical Medicine, 1936, p. 129.

[3] *Ind. Med. Gaz.*, LXIV., 1929, p. 421.

Treatment and General Management of Ordinary Irritating Skin Diseases*

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There seems to be a lack of adequate attention paid to the sufferers from skin disease by the busy general practitioners, specially in the rural areas. The probable reasons may be the following :—

(1) Want of sufficient instruction: There is no arrangement for lectures and clinical demonstrations in the medical schools. The qualified medical men are left to acquire of their own accord sufficient knowledge of the subject to help them in their practice. But the study of mycology is simply bewildering. Classifications are in such a chaotic state that the tendency for each worker to formulate a classification of his own seems to be almost dormant, so that the more one reads the more confused one becomes.

(2) Indifference on the part of the patients to attend clinics and dispensaries either due to negligence (since it does not vitally affect or mortally wound them) or because the result of treatment is not upto their expectation, specially in some chronic cases.

(3) Refractory and relapsing nature of some of the skin diseases. Here both the patients and physicians lose their patience.

I have endeavoured in this paper to make an outline of treatment of general skin diseases e.g., dermatitis erythematous, exfoliative or seborrheic ; eczema ; pruritus ; ptyriasis: psoriasis ; impetigo ; folliculitis etc. The treatment of these diseases is identical in some

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treatment by vaccine, serum and sulphonamide preparations should be given in proper time. Thus half the battle against this disease can be won. That is not at all a small victory, because it saves the patient much of ill-health and invalidism which otherwise are sure to overtake him.

Since there is no other way of relieving the highly advanced and burdensome elephantoid scrotum which acts as a dead-weight on the patient, it has inevitably to be removed by surgical methods. The results are fairly satisfactory. But surgical intervention in other conditions must be undertaken with care and deliberation, if at all.

points or other. I have purposely excluded the treatment of scabies, ring-worm, and other fungal infections.

GENERAL MEASURES

1. Finding out and removal of the causes :—

(a) Toxic agents circulating in the blood as seen in certain drug dermatitis e.g., following the use of sera, iodides, bromides, copaiba, boric acid etc.

(b) Blood conditions which may be irritating to the peripheral nerve-endings e.g., diabetes, gout, Bright's disease, jaundice dyspepsia, and other toxæmic conditions of alimentary origin.

(c) Sensitiveness to certain foodstuffs e.g., lobster, crabs, meat, cheese, strawberries, etc.

(d) Constitutional causes e.g., anæmia tuberculosis, etc.

(e) Local irritants: 1. mechanical e.g., certain caterpillar, moth or mosquito bites; 2. *Certain dye-stuff* e.g., vermilion, lipsticks, etc. Coarse and furred underclothings should not be lost sight of in cases of children.

2. Exposure to wind and bright sun, irritating medical soaps, vigorous scratching and uncleanliness are to be avoided.

3. *Diet* : hot curries, excessive meat, fish and eggs are harmful. Cow's milk should be given, in minimum quantities. On the whole bland, easily assimilable food should be given. Some recommend vegetarian diet.

(4) *Bowels* : A smart initial saline purgative should be given followed by regular attention to bowels.

(5) *Bath* : Hot or tepid baths are beneficial. The following medicated baths are helpful to allay itching :—

Alkaline bath : Sodi Bicarb. 8 oz. or Borax 3 oz in 30 gallons of water. Starch 1 lb, Linseed 1 lb in 30 gallons of water. The last two may be used as poultices where there are pustules with discharges and loose crusts e.g., impetigo, infantile eczema, etc.

DRUGS

(1) Powder.
(2) Lotions.
(3) Paste, cream or ointment.

But none of these are free from drawbacks.

Powders and pastes : Tend to cake into hard masses, which are not easily removed. This is remedied by employing alternately a lotion containing, in suspension, the same drug as in dusting powder.

Lotions : (1) The insoluble ingredients do not reach the skin surface through the lint, consequently only the aquous menstruum is permitted through it.

ERADICATION OF MALARIA

Malaria if not as old as the human race is certainly as ancient as Sanskrit Susrut itself. Even in that old epitome of medical experience of the ancient Hindus one finds indication of the theory of conveyance of malarial germs by special species of mosquitoes.

The downfall of the towering civilisation of ancient Greeks and Romans has been definitely traced by scientific historians to the devastating activities of malaria. As this disease does not constitute at the very onset an immediate danger to human life, like other virulent infectious diseases e.g., Cholera, Small-pox etc., its treatment is generally and habitually neglected in the beginning, as a result whereof by re-infection it saps the vitality and vigour of the individual and makes him invalid. The deplorable condition of the people of India, specially of Bengal, to-day is just due to negligence in this respect in the past. From the report of the Director of Public Health Department it is found that every province shows decline in incidence of Malaria except Bengal where about three crores of people—that means about half the total population,—become victims of malarial fever and no less than fifty per cent of these victims step into the grave every year. It, therefore, goes without saying that malaria constitutes a major public health problem both from the standpoint of mortality and of morbidity.

Malaria is prevalent even in temperate zones. It would have been more or less world wide but for the fact that extreme cold beyond the temperate zones exerts unfavourable influence over the development and growth of the mosquitoes as well as the parasites thus making the infection impossible there. As has already been said, malaria not only takes a heavy toll of human lives but also saps the vitality of those who survive the onslaught of this disease and who thereafter fall easy victims to other diseases. Those who fortunately escape death are rendered incapable of any strenuous struggle for existence. Being unfit for a proper standard of civil life they eke out and drag on a miserable existence. Preventive care of Malaria should draw our first attention.

But how to do it?

Though quinine has been the time-honoured agent in the treatment of malaria, both old and recent statistics have shown that it does not hold the patient away from re-infection. **QUINO-HAEMOGEN** which besides quinine contains total cinchona alkaloids in adequate dosage with adjuvants like iron, arsenic, nuxvomica etc., has given the maximum result with minimum of cost. Extensive experiments in vast areas infected with malaria and also in many hospitals have proved the undisputed anti-malaria efficacy of **QUINO-HAEMOGEN**. It not only kills the parasites but also helps to regenerate the blood of the patient and thereby lessens the chance of re-infection.

(2) Mechanical irritation caused by the stiffened and dried up lint which adheres to the surface and removal of the same causes bleeding and skin irritability. This difficulty can be overcome by covering the lint with oiled silk. But this brings on another difficulty. It keeps the part in a continuous sodden state and retards healing. The best is to employ glycerine or olive oil along with the lotion.

Ointments: They make a more or less impervious dressing under which the retained secretion is imprisoned causing aggravation of the disease. This can be obviated by the addition of a cream or olive oil or glycerine along with it.

The selection of the specific drugs depend on the amount of secretion or exudation present. But there is no hard and fast rule. The usual practice after cleansing the surface of all the debris is to apply lotions in the first stage, specially when there is abundant secretion. When this has stopped, the ointment should be applied.

Another point is that one should not prescribe a number of drugs in one and the same prescription which causes irritation and impedes healing. One should not change drugs often. The physician should bear in mind that patience is the sheet-anchor in the treatment of skin diseases.

EXTERNAL TREATMENT

(1) Itching is the main annoying symptom which most of the patients complain of. For this, alkaline bath may be sufficient. If it fails the paient should be smeared with any unirritating dusting powder or any bland oil e.g., cocoanut oil, olive oil, paraffin oil or the following in the morning:—

PRESCRIPTION NO. 1.

Re/- Creosote—m 1
Ol. Gaultheria—m 7½
Camphor—gr 7½
Ol. Olive—oz 1

After 2-4 hours, a warm bath is given. Simple erythematous cases require no other remedy.

Powder—A combination of zinc oxide, starch, acid boric and camphor.

Paint—Menthol dissolved in spirit or

PRESCRIPTION NO. 2.

Re/- Menthol—2 drachms
Chloroform—1 „
Ol. Olive—4 „

Camphor 10 grs. and laudanum in m. 15 doses are good adjuvants. Cocaine should better be avoided.

(2) Where there is copious serous exudation, any astringent powder may be used e.g., bismuth carb. kaolin, zinc oxide, French chalk etc. For astringent action the burnt-earth inside a household oven when powdered and applied on a oozing eczematous surface, has given striking results in the hands of the writer. In 3—4 days' time the discharge altogether stops.

(3) In dry acute erythematous cases the following lotion should be applied:—

PRESCRIPTION NO. 3.

Re/ Zinc Oxide—gr 15
Calamina—gr 15
Ol. Olive—4 drachms
Lime water—4 drachms

This can be used in dry subacute cases and in certain sensitive skin in children where simple lotio calamin cannot be tolerated. This is sufficient to cure ordinary cases of dermatitis.

(4) Preparation of the cases for further medications in pustular and vesicular varieties. The skin surface should be cleaned of crusts: scales and debris if there be any. If the oil in prescription No 1 is applied and kept for 2—4 hours it soothes irritation and usually softens the scabs and scales and they get easily separated with a warm bath (soaps should not be used). In case of scalp, the hair should be cut short and the entire scalp is washed with saturated boric acid or borax solution. Then a bland ointment containing zinc oxide and liq. plumbi fortis (15m-oz. 1) should be applied. In case of impetigo starch poultice acts as the rust cleansing agent.

In cases of moist inflammation with secondary pustular folliculities, after the skin surface is thus cleaned, any one of the following antiseptic paints should be applied e.g., 5% gentianviolete or brilliant green in 20% alcohol; or a lint may be soaked in lotio acriflavine 1-5000 (aquous) and applied on the surface for 4—6 hours. Later on some astringent lotion, powder or paste should be applied.

(5) The popular variety is the most rebellious to treatment. The best routine is to employ lotio calamina Co with liq. carbon detergens in 1 dram to 1 oz. doses in the day, and prescription No. 3 at night. These cases mostly require internal medication.

I am now giving a list of some of the time honoured prescriptions which are used in general skin practice.

PRESCRIPTION NO 4.

Calamina—2 drachms
Zinc Oxide—2 drachms
Liq Plumbi Fort—m 5
Liq Carbon Detergens—m 15.
Glycerine—2 drachms
Aqua—ad 2 oz.

PRESCRIPTION No 5.

Hydrarg Perchlor—gr ½
Glycerine—m 5.
Spt Methylated—½ drachm.
Aqua—ad 1 oz

(very good in obstinate cases).

PRESCRIPTION NO 6.

Re/- Camphor—gr 10
Zinc Oxide—1 dr.
Calamina—1 dr.
Liq. Calcis—1 oz.
Ol. Olive—1 oz.
Pastes or Creams :—

Prescription No. 7.

R/	R/ (Lassar's Paste)
Zinc oxide—2 dr.	Zince oxide—48
Liq. Plumbi Fort—1 dr.	Starch—48
Ol. Olive—1 dr.	Salicylic acid—4
Vaseline—1 oz.	Vaseline—100

The strength of the ingredients may be changed according to the requirement in each stage of the disease.

PRESCRIPTION NO. 9	PRESCRIPTION NO. 10
R/ Zinc oxide—1 dr.	R/ Zinc oxide—2 dr.
Starch—1 dr.	Liq. Plumbi Fort—m 15.
Liq. Calcis—1 dr.	Liq. Carbon Detergens—15.
Ol. Olive— dr.	Paraffin molle Flav—1 oz.
Vaseline—1 oz.	Ol. Olive—2 dr.
(Very good in sensitive skin)	

PRESCRIPTION NO. 11

R/ Crude Coal Tar—2 oz
Zinc oxide—2 dr.
Liq. Paraffin—2 dr.
Vaseline—½ oz.
(Very good in chronic cases.)

(6) In cases of secondary impetigo, the most valuable remedy after hot bath and cleansing is the application of ammoniated mercury ointment 5-10 grs. in 1 oz of vaseline when small patches exist and healing is sluggish ; these patches, after thorough cleansing, should be painted at the margin with 20% solution of silver nitrate. In 3-4 days time all crusts and scabs disappear and the eczematous area look dry and shiny.

(7) In cases of scaliness without exudation or crusts (e.g., psoriasis or exfoliative dermatitis) it is very difficult in some cases to remove them by only anointing the oil in prescription No 1. These should be rubbed and removed by a turkish towel after prolonged immersion of the body in a warm bath containing alkalies or starch. Afterwards, when the body is dry any discutient (scale-removing) drug or prescription No. 13 should be applied on a bandage soaked with it. When this fails, the following should be resorted to in very chronic cases :—

PRESCRIPTION NO. 12	PRESCRIPTION NO. 13
R/ Chrysarobin—gr. 2.	R/
Liq, Carbon Deter-	Salicylic acid—2½ dr.
gens—m. 20.	Chrysarobin—5 dr.
Hydarg Ammon—gr. 20.	Ol. of cade—5 dr.
Creosote—m. 10.	liq. soap— 6 dr.
Ointment basis—2 oz.	Petroleum—6 dr.

INTERNAL TREATMENT

The digestive system should be tackled first. Constipation or dyspepsia if present should be corrected. Tonics in the form of iron, arsenic and cod-liver oil should be given to increase body resistance. Fowler's solution in 2-5 m doses acts marvelously in chronic eczema or psoriasis. Calcium-parathyroid tablet or simple cal. gluconate powder are helpful.

Injections commonly given are :—Collo Calcium with Ostelin and Vitamin D, Manganese Butyrate (B.D.H.), protein shock therapy in the form of various milk preparations. Each of these give excellent result in some case or other. The last weapon in our armamentarium is X-ray and ultra-voilet ray therapy which is reserved for the specialists.

Now I shall make a brief comment on some of the drugs which are generally used in skin practice. The list is an endless one. But calamina, lead, tar, mercurials, zinc oxide are sufficient weapons in one's armamentarium if skilfully handled.

Calamina and lead preparations are used in acute and subacute cases. They are astringent and sedative and used as lotions or ointment.

Tar: —As with arsenic internally, so with tar externally, both these drugs give excellent results in chornic, scaly, dry eczema and psoriasis. When tar fails in chornic eczema, it must be taken that it is due to its higher concentration. It acts like fuel to the fire when applied in acute, moist, weeping, red eczma. Hutchinson regarded tar as the one remedy for eczema. If he used two, they were tar and lead, if three tar, lead, and mercury. The dose should be small at first, beginning with not more than m 15 of liq. carbon detergens, gradually increasing upto 1 dr. per oz. of the ointment.

Mercurials:—Just as lead preparations are used for their astringent action where there is much weeping and tar for its stimulating action in sluggish cases, so mercurials are indicated for their alterative actions i.e., in subacute cases where one hesitates to use tar or when it fails to produce any effect or where there is much redness, irritability and induration present. Afterwards they may be combined with tar,but they should not be applied over a large body surface.

Preparations used:—Ung. hydrarg. ammon (1 : 16), ung. hydrarg. nitr. dil. or ung. Metallorum containing equal parts of zinc, lead subacetate and hydrarg. nitratis.

Resorcin :—Unna used it for seborrheic cases. He states that there is no stage, no region, no age, no skin, nor any complication

Relief of Labour Pains

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Napoleon was once asked who was the most respected lady in the world. He replied that the woman who bears the largest number of children is the most respected. Of all the pains to which the human flesh is heir, the pain of labour is the most excruciating. That Nature should have subjected a woman to such unbearable pain in the birth of a child is strange. The ways of Providence are unfathomable. Nature has created woman fitted biologically to endure pain.

Medical science has witnessed renewed attempts on the part of anesthetists and obstetricians to accomplish the relief of pain during labour by means of drugs which are both efficient and safe to the mother and the child. This problem is not serious in a well-conducted institution. But midwifery at the patient's home materially complicates the situation when the needs of the patient, the midwife and the obstetricians have to be considered. Pye, in *British Medical Journal 1932*, called attention to the fact that 60 per cent of births in Great Britain are attended by midwives. Meagre knowledge in the use of drugs, discouraging attitude of the authorities and the patient's belief that nothing can be done to relieve pain are facts which should be noted. In Queen Charlotte and Middlesex hospitals use of crushable capsules of chloroform is investigated. There the nurses are not debarred from using ether, chloral, bromide, and opium to relieve pain.

A valuable report has been published about means adopted to relieve pain in 560 cases of labour at the Royal Free Hospital. The report points out that a completely painless labour by administration of an analgesic or an anesthetic is rarely possible without danger. The ideal drug should produce no effects on the contractions of the uterus, nor it should be such as to increase the risk of post partum bleeding. It should have no adverse effects on the fœtus. It should keep up a condition of analgesia until the head is delivered.

Of inhalation anesthesia, mixtures of nitrous oxide and oxygen appear to be the methods of choice. These can be used from the beginning of the first stage to the end of the crowning of the head without harm to the mother or the child. They do not interfere with the normal mechanism, shorten the second stage, or cause no shock and bleeding. At the Royal Free Hospital the general plan is to give sedatives by mouth or intramuscularly during the first stage, gas and oxygen during the second stage and chloroform in the delivery of the head.

For general practitioners who work single-handed chloroform is the ideal anesthetic in the second stage and in the delivery of the head. For use in an institution, gas and oxygen possess advantages, while they are not advisable for use at home for several reasons. (1) Question of expense. (2) Special apparatus is required. (3) Service of an anesthetist is required. (4) To avoid unpleasant and fatal termination during administration an adequate supply of oxygen must be available.

Apart from inhalation anesthetics, there are anelgesics of barbituric base. Pernocton is extensively used. Brammer has used it in 1500 deliveries. It can be used intramuscularly and intravenously. Intramuscularly 5 c. c. is very efficacious. In the case of a primipara it is given when the os admits three fingers and in multipara two fingers. The average duration of this "twilight sleep" is 2½ hours. No death was recorded. 18 infants showed some degree of respiratory distress. DOSES EMPLOYED: First dose intravenously 4 C. C. Second dose 2 C. C. Quiet surroundings and careful suggestions are essential to the technique. Injections are given slowly.

where it cannot be used except in those rare cases of resorcin idiosyncrasy. He gets the best result from the following:—

PRESCRIPTION NO. 14

R/ Resorcin—1
Glycerine—1
Rect. Spirit—18

To be painted with cotton wool with 1 part of this solution in 4 parts of water. The horny layer swells, all thickening and indurations pass away. Then a greasy ointment should be applied for finishing the cure. (The writer has no experience of this.)

Ichthyol:—A valuable sedative in acute cases. This is not much used in these days.

X-ray and ultra-voilet ray are the last resort.

I am much indebted to Dr. S. C. Datta, Medical Officer, Sadar Haspital, Krishnagar, for his encouragement, guidance and valuable suggestions and to my Civil Surgeon Capt. K. C. Sen Gupta for his kind permission to publish this paper.

In Great Britain and America, nembutal is extensively used. In London hospitals in 60 cases "twilight sleep" was induced by nembutal and chloral. These were given by mouth. Total dose of nembutal was 7½ grains and 120 grains of chloral was not exceeded, in 12 hours. Nembutal preceded chloral to avoid vomiting. Chloral can best be given in sweetened lemon juice. Results are as under.

Painless labour	...	62 %
Very good results	...	21 ,,
Good results	...	10 ,,
Failure	...	7 ,,

Babies were born with good colour. There was no mortality. Crane concludes that nembutal and chloral can be given to any woman in labour. Midwives also can be safely entrusted with the drug so long as they do not exceed the dose prescribed by the attending physician.

Among various other drugs it was found that a combination of pot. bromide and chloral is a safe and useful sedative in the first stage especially in nervous patients. It has no effect on the uterine contractions. 30 grains of each drug as an initial dose repeated in small doses at 3 or 4 hours interval give good results.

Morphia is another valuable sedative. It is much safer than any of the barbituric preparations. Its effects are prolonged and intensified by administration with 50 per cent solution of mag. sulph. This should not be given until the os admits 3 fingers and until the patient is not helped by pot. bromide and chloral. Intervals between pains are prolonged and pains are increased in intensity. In the fœtus respirations took place immediately. If the respirations are sluggish carbon dioxide and oxygen are advised. The old methods of artificial respiration are dangerous.

During birth of the head chloroform should be used. But prolonged administration of chloroform delays respirations in infants. It is evident that the attainment of ideal results demands the constant presence and supervision of an attendant who possesses knowledge of analgesics and anesthetics and necessary skill in their administration.

SUPPLEMENT TO

THE INDIAN MEDICAL JOURNAL

MADRAS JULY 15, 1940 Vol. 2, No. 7

CONTENTS

A Comparative Study of Different Systems of Medical Relief—Foreign & Indian*

● Dr. A. Viswanatham

MEDICAL RELIEF IN GERMANY & RUSSIA

Germany has got a population of 80 millions and medical practitioners to the extent of nearly a lakh, giving thus one doctor to 820 of the population which is certainly a very satisfactory ratio, particularly in view of the fact, unlike as in our country, that the medical men and hospitals are evenly distributed throughout all the German States. There are two essential points of difference between Great Britain and Germany: The medical practitioner in the former country is almost a free individual and can express himself in terms of his own personality whereas his German colleague has no such prerogative and must abdicate his personality to the collective will and decisions of the German Medical Chamber which is both a *de facto* and *de jure* medical department of the German Government, under the control of the Minister for the Interior. Secondly the German Health Insurance covers more than two thirds of the population and gives them comprehensive benefits and complete medical attention, and therefore the sphere of unrestricted private medical practice, as in Great Britain, America and in our country, where a doctor looks after a number of individuals and families single-handed, is very considerably small.

To understand the outline of German organisations for medical relief in proper perspective it is necessary to know the mutual relationship between the German doctor, the German medical profession, the German Government and the people. The German doctor has got very little individual freedom, and must obey implicitly the medical Fuehrer of the Medical Chamber. But the German medical profession, whose sole mouthpiece is the German Medical Chamber (Reichsarzte-Kawmer), has more freedom, independence, responsibility and autonomy than in any other country, because this Chamber which is made up of the representatives of the profession elected by regional Medical Chambers and whose president is nominated by Fuehrer is by itself a part of the Reich, just as the British Ministry of Health is a part of the British Government. Whether it is good or bad for the German doctor it is not for us to determine, but we can take it that it is good for him because he has been claiming and clamouring for such an organisation with such statutory rights, control and privileges as they are now current in his country. This arrangement came into effect only in the year 1933 when Germany adopted an entirely new political system based on the political and social philosophy of Herr Hitler —popularly called National Socialism or Nazism. Parliamentary institutions, as we know them, have ceased to exist in the Germany of to-day. There are of course elections to local bodies and other self-governing institutions, such as the German Medical Chamber, but the executive body of these corporations, chambers or institutions is

*The third part of the lecture delivered at the Stanley Medical College Association, Madras, on 18th Jan. 1940. The first two parts were published in April & May Supplements. The observations made herein refer only to pre-war conditions. Author.

appointed directly by the Central Government, and the executive have a considerable degree of independence and extensive powers. Before 1933, medical practice was treated as a trade, and was subject to all kinds of trade taxes. Till 1885 the medical men possessed no legal or public status at all. They therefore demanded a State-recognised organization to which all doctors should be obliged to belong and which should order the discipline and the ethics of the profession and which should form a link between the Government, the profession and the people. Between 1885 and 1933, the German legislature refused to accede to these demands of the leaders of the medical profession but allowed the separate German States, such as Prussia, Baden, Bavaria and Wurtemburg, to set up their own medical chambers. These provincial medical chambers multiplied through the passage of time and suffered inevitably from multiplicity and lack of uniformity of procedure. They can only pass resolutions and recommend the same to the Government, as we in India and Great Britain are accustomed to do to-day. But the German medical profession was dissatisfied with such make-shift and insular organisations and wanted a more comprehensive organisation which should cover the whole of Germany. They footed two organisations: the German Union of Medical Associations, and the Association of German Medical Practitioners. The former was a federation of local voluntary associations made up of representatives from them. But this Union lacked authority and influence and did not achieve any real unity. When Bismack introduced German National Health Insurance in the year 1900, its provisions hit so hardly the members of the profession that they formed immediately the Association of German Medical Practitioners. But the conflict it encountered was so bitter and great, and the success it attained was so little and apparent that it threw up the sponge in despair. The legislature and the Insurance Societies which had statutory recognition were up against this Association. According to a German version, things changed for the better in 1933 when the Reich Chancellor, Herr Hitler, gave a new orientation to the whole of the German Medical Profession by extricating it from the ridiculous position assigned to it as a trade and by giving it a statutory recognition and merging it in one association of medical men, the German Medical Chamber to which I had already referred. The code of medical ethics and the statutory rights and duties, privileges and obligations which this code has defined have been considered as the Magna Charta of the German medical profession. It is this German Medical Chamber which is responsible for the fulfilment and enforcement of organisation of all aspects of medical relief: medical research, medical education, health insurance, provision of hospital facilities and the planning of public health. Medical research and medical education are highly advanced in Germany from both academical and utilitarian points of view. I would only stress three points which deserve our attention in this connection: (1) No medical degree is confirmed, even after passing the necessary examination, till the qualified candidate serves for not less than one year in an approved hospital. (2) Facilities for post-graduate study and work are so complete, and their ramifications are so comprehensive as to embrace every aspect of general and special medical practice that every doctor is statutorily obliged to take a course of post-graduate study every five years if he is to be recognised continuously by the German Medical Chamber. (3) No doctor can set up practice in a given area without the permission of the Chamber (4) Every doctor must take notes of his findings and treatment in every case, and preserve them for at least five years together with histories and radiographs. The brunt of medical relief falls on the German Health Insurance and, as I have said earlier, it offers a complete medical attention. There are three types of Health Insurance in Germany having statutory recognition: the compulsory, the voluntary and the private. The Compulsory is entirely in the hands of the Reich Government, and is administered in consultation with the German Medical Chamber. The Voluntary is worked under the auspices of the State railways, other public transport services, the army and the Local Bodies who are compelled by the Statute to provide Health Insurance for workers and officers under them. The Private Insurance is planned by factories and firms for the benefit of the workers. The special and general hospitals of Germany under the Municipalties and the Government are very evenly distributed. Thus you will find in Germany, as in Great Britain, though there is a great variation in details and a striking difference in the outlook of the respective Governments in the matter of control of the profession and in the distribution of medical relief, yet medical relief, as defined by me at the outset, is very much advanced in all its aspects. The only defect, as it appears to me, is its excessive mechanisation at the avoidable cost of the human element.

CONDITIONS IN THE U. S. S. R.

Many legends about the United Social Soviet Republics of Russia have been written by scores of globe-trotters—fancied and real, hypocritical and honest, foolish and foul. But amongst such legends, those that describe the conditions and work of Soviet Public Health and Medicine are almost unanimous in their observation and opinion that the Soviet method and programme of medical relief is a model of its kind. And even Col. Sprawson of the Indian Medical Service who visited this mystic country a year ago has to confess the staggering ramifications of medical relief according to Soviet concepts of preventive and curative medicine. His observations more or less agree with those of Henry E. Sigerist of the Johns Hopkins University chronicled in his book "Socialised Medicine in the Soviet Union" which has been so ably reviewed by you, Sir, in the columns of the *Indian Medical Journal*, May, 1933.

Russia has got a population of 183 millions, and 1 lack and 8000 practitioners which give a ratio of one doctor to 1560 of the population. The Soviet aim is to have at least 1 doctor to 1000 of the population. Unlike in Germany and Britain, majority of Russia's population is agricultural. In this respect Col. Sprawson has put rightly India and Russia together, and the problem that faced Russia when the Bolshevik Revolution ended in 1918, and the problem that faces our country to-day after nearly 200 years of British rule is the same—the problem of effective medical relief of the vast agricultural masses scattered over a vast country and living in thousands of villages, separated by distance and suffering from neglect. The way in which the Soviet Republic has set about to regenerate such a huge agricultural population in terms of health and economics is certainly an example of supreme human endeavour in the history of mankind and the first great experiment by the Government of any country, past or present, in the stupendous task of relieving, by Governmental measures, the physical and financial distress of a country's huge population, till now occupying the position of a dumb-driven cattle. Before I enumerate the Russian organisations engaged in this objective, I should like to relate to you the principles of Soviet Medicine on which these organisations are based and worked. At the beginning of the new order of things in Russia, Soviet Medicine freed itself completely from the traditional difference between preventive and curative treatment. This inevitably led the Russian Government to take charge of every Russian citizen from his birth to death. The second principle is the equalisation of all classes of people, rich and poor alike, the employed and the unemployed, the young and the old, the men and the women, in terms of health. This, again, inevitably led the Russian Government to distribute medical and public health benefits to all Russian citizens irrespective of their position in life without any kind of discrimination and favour. The third principle is that the two wheels of medical relief and public health work were made to move forwards on the axis of better nutrition of the people, which alone, according to Col. Sprawson, is responsible for a marked improvement in the health of the people with such rapidity.

This is the concept of Soviet Medicine, and on this concept is based all the hundred and one organisations of Russian medical relief. Dr. Nikolai Alexandrovic Semashako first organised the People's Commissriat of Health in the year 1918. This is the Central Organisation, located at Moscow and charged by the Soviet Government with the responsibility of providing everyone free, accessible and skilled medical treatment. Only then, as stated in the first communique issued after its formation, the ideal of communistic medicine could be realised, viz., "the disappearance like a shadow before a sunlight all private hospitals and all commercial private practice". This Central Body is in charge of planning the whole programme of medical relief in all its comprehensive phases and of the distribution of medical personnel. The actual work is carried out by a number of regional commissariats whose duties are well and clearly defined: utilisation of existing hospitals and construction of new ones; regional distribution of medical personnel including specialist services; arrangements for post-graduate education; recruitment of candidates for medical education: initiation of anti-epidemic measures; Sanitary inspection of food, laundries and public utility services: Sanitary education of the masses; control of health resorts; organisation of medical supplies; maternity and infant welfare. Prevention of disease is sought to be attained by improving the working and living condition of the masses; the establishment of public utility services in villages as well as in towns; arrangements for suitable housing; communal feeding: compulsory and paid holidays; insurance against old age, sickness and disability; maternity vacation; establishment of medical stations in factories and workshops; storage and retailing of foodstuffs; prescription of special food according to the nature of work and the nature of ailments. Special diseases such as plague, small-pox, typhus, typhoid, venereal diseases, malaria and tuberculosis are systematically tackled by organised concentration of medical forces. The two most interesting institutions are the night and day sanatoria where the workers on night-shifts can receive best medical attention in the day, and those on day-shifts a similar attention in the night. The total number of preventive and curative institutions of all kinds and of all dimensions is too staggering even from enumerational point of view and the amount spent on Soviet Medicine is the largest that is spent by any Government in the world to-day. I therefore refrain from quoting the exact figures. As an illustration, however, I may cite there are to-day in Russia nearly 500 special tuberculosis hospitals dealing with advanced cases, nearly 5000 tuberculosis dispensaries dealing with early diagnosis and treatment, and nearly 16,000 sanatoria, 11,009 convalescent homes and one labour prophylactoria, on the Papworth Model in each industry. The total Soviet budget for health for the year 1938 was roughly 8 thousand million roubles or 12 thousand million rupees. (1 Soviet rouble is equivalent to 1 2 American Dollar or nearly Rs. 1-8-0 in Indian coinage). Medical Research is not neglected even amidst this maze of endless routine, although, either by design or accident, we have not heard much about Soviet medical research and very little of this is mentioned in continental medical literature. Russian medical education is interesting from many points of view. Col. Sprawson has remarked that all the medical schools and the attached hospitals are well-equipped and efficiently manned. There are to-day 72 such teaching institutions. More than 50% of the medical students are women. There are two types of medical education, as in our own country: the Feldsher and the Graduate education. The former is a relic of the Czarist regime which

the subsequent Russian Socialised Soviet Republic could not dispense with owing to its country-wide programme of medical relief. The Feldsher spends seven years at school and undergoes three years' medical course. The University medical graduate spends 10 years at school and undergoes a five years' medical course. This course branches off at the end of the third year after which special training in the speciality which the student has selected is imparted. Thus the student emerges from the school as a specialist in Public Health, pediatrics, general medicine, surgery, etc. At the end of the Russian Revolution the Feldshers were in the ratio of 3 to 2 graduates. The position is reversed now, as the Soviet Government is determined to end the Feldsher type of medical education as rapidly as the urgent requirements of medical relief are met with. In the year 1938, the total number of undergraduates in Medicine were 96,000, and of Feldsher students 15,000. The medical course in Russia is intensely practical. The best qualifying students are selected to be sent to rural parts for a period of three years. All the doctors are well-paid, they are only allowed to work for 6 hours a day, 6 months' study leave is given every three years, compulsory annual vacation with full pay is given, particularly for those who are practising in rural areas, the regional Soviet Commissariat arranges for post-graduate education, and the doctors are distributed for work throughout Soviet territories at the rate of one to every 2 or 3 thousand of the population.

(To be continued)

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U. P. Licentiates in Deputation

The following are the full details of a memorandum submitted to the Adviser to Local Self-Government and Public Health on 25th May 1940, by a strong and influential deputation consisting of Drs. M. L. Kapur (G. S., A. I. M. L. A.), R. N. Lal, P. S. Varma, I. N. Saxena and K. B. L. Varma (Prov. Secy., U. P. Branch).

We understand that the Adviser gave a sympathetic hearing.

The points mentioned in the memorandam require no further elaboration by way of comment or explanation. The demands made by the deputationists are so just that they cannot be refused unless the Government is bent upon following the negative and barren policy of holding up the progress of the licentiates in the matter of their higher medical education, of equitable treatment in service and of equal recognition by Statutory Medical Councils. The Government should clearly declare their policy: Do they want to give a helping hand to the licentiates, or do they want them to go down to oblivion "unsung, unwept and unhonoured"? For a licentiate it is a Hobson's choice, but it is up to the Government to indicate their policy without any ambiguity, and without drawing a perpetual red-herring across the trail of their progress.—Ed. *I. M. J.*

REORGANISATION OF AGRA MEDICAL SCHOOL

We have been praying to the Government continuously for two decades to be pleased to raise the course of medical study at the Agra Medical School to five years so as to be recognised by the General Medical Council of Great Britain as this would raise the status of Indian Medical Licentiates to that of Medical Licentiates of England and other civilised countries of the world. We are naturally grateful to you that these reforms are being given effect to during the tenure of your administration.

The Agra Medical School established in 1854, one of the oldest medical school, has turned out numberless qualified men as Medical Licentiates who are at present serving the cause of suffering humanity to the best of their experience, knowledge and abilities. As the present change in the institution is the result of the untiring zeal and efforts of those Medical Licentiates, it is but our natural desire that their interests should be safeguarded by allowing them to appear for the final M.B.B.S., examination. This may be done through a short course of training in certain subjects in the case of those who have put in more than 5 years practice and a separate course with certain facilities for those having less than 5 years' practice of reading at present in the Agra Medical School. Our request is on par with the policy of the General Medical Council in Great Britain, where a medical student has to put only 4 years' study in a medical institution and 5th year as hospital practice before he is allowed to appear for the final examination of the British Universities and conjoint Boards.

In order that our connecting link with our old dear alma-mater may not be broken and also in order to achieve these ends we greatly need your full support and pray that old students of the Agra Medical School as represented by the U. P. branch of the All India Medical Licentiates' Association be appointed to all the committees of the University dealing or concerned with medical education including the Senate, Executive Council and Medical Faculty and that Government be pleased to nominate our representatives by reserving a certain number of seats for them.

AMENDMENT OF THE INDIAN MEDICAL COUNCIL ACT

The present position of Indian Medical Licentiates is anomalous because although their medical qualifications are recognised under the Provincial Medical Acts in every Province of India, they are not recognised by the Indian Medical Council which implies indignity at home and disgrace abroad. We therefore pray that our Government be pleased to represent to the Government of India to recognise the existing licentiates by making necessary amendments in the Indian Medical Council Act.

Our case deserves special consideration as our qualification is recognised by the Government in our province. In Great Britain when the British Medical Council was formed even unqualified men, practising Western Medicines, were registered on the ground that men practising Western Medicine before the passing of that Act must be encouraged and treated on equal footing along with qualified medical men.

AMENDMENT OF THE U. P. MEDICAL ACT

A very important item that constitutes the U. P. Medical Council is the election of its own members. The practice in vogue is a separate electrorate for Graduates and Licentiates, which is responsible for the constant tug-of-war among the profession.

It is therefore prayed that the joint electorate election system be introduced. and the Act may be amended accordingly so that there be one common register for the registered Medical Practitioners like in Madras.

SERVICE GRIEVANCES OF LICENTIATES

1. The Licentiates in Provincial Medical Service are debarred from promotion to the post of a Civil Surgeon except in cases of short term leave vacancies not exceeding beyond four months. This restriction may kindly be removed,

2. The percentage of promotion from P. S. M. S., to P. M. S., is too small. It is prayed that it may be substantially increased.

3. At sub-charge stations, the distribution of Hospital work is not uniform throughout the province between the Medical Officer-in-sub-charge and the Medical Officer-in-charge. It is prayed that the duties be defined and added to the U. P. Medical Manual. The Inspector-General of Civil Hospitals, U. P., be kindly empowered to fix up duties of the Sub-Charge and the In-Charge Medical Officers. The allotment of work be such as to give the Sub-Charge Officer chance to perform major operations, treat cases in both general and private wards, look after out-patients' Department, and in short he should be given 25% share in the whole machinery of the In-door Department with 75% of share in the outdoor.

4. At Head-quarters of the Districts, the P. S. M. S., Medical-Officers are practically debarred from conducting post-mortem examinations, while they do the same in muffusil dispensaries of many districts. It is requested that the P. S. M. S., Officers be kindly allowed to perform post-mortem examinations at the head-quarters of the districts whenever the Civil Surgeon is out of the district on short leave or on tour.

5. As the number of Medical Licentiates in P.S.M.S., cadre is decreasing due to increase of Medical Graduates in P. S. M. S., to 10% of the cadre and closure of Licentiate class at the Agra Medical School, it is most respectfully prayed that in order to help the recently passed students of Agra Medical School, recruitment to P. S. M. S. cadre should be kept open to Licentiates by fixing their age limit as a special case to 30 years instead of 25 and further no preference in posting to important stations should be given to junior medical graduates of P. S. M. S. cadre over their senior licentiates in the same cadre

6. The following grievances of Subordinate Public Health Service need your sympathetic consideration and redress.

(a) The L. P. H. Health Officers 1st grade be ranked as gazetted officers like Deputy Inspector of Schools of the subordinate education service, the scale of pay and nature of duties of officers of both classes being similar. The strength of L. P. H., Officers 1st grade is 50 only and they were classified as Gazetted Officers previously.

(b) The percentage of promotion from Subordinate Public Health Service to Provincial Health Service is meagre and it is requested that it may be increased to 10% of the total strength of L. P. H. Officers.

(c) All the important third class municipalities numbering sixteen be provided with L. P. H., Health Officers.

(d) The L. P. H., Health Officers may be allowed to stay in P.W.D., Canal, Forest and D.B. Dak Bungalows while travelling on duty during epidemics.

(e) The Medical Officers I/C travelling dispensaries recruited in the new scale of pay of Rs. 100/- to Rs. 150/- should be given travelling allowance as it is very hard for them to meet their travelling expenses out of their pay.

(f) The conveyance allowance of school Health Officers should be increased from Rs. 18/- to Rs. 25/- so as to meet the maintenance charges of a conveyance.

In the end we beg to thank you for giving us a sympathetic and patient hearing.

With reference to the last part of the memorandum dealing with L. P. H. Officer's grivances, Dr. I. N Saxena sends us the following notes of verbal reply given by the authorities to the issues raised by the deputationists.

(a) The Deputy Inspectors of Schools who have recently been gazetted are in-charge of the district while L. P. H. officers are A M.O.H's mostly.

However the reasons for the withdrawal of gazetted rank from these officers will be examined and their cases will be considered why the gazetted rank was taken away from them.

(b) This will be considered along with the question of the increase of percentage of P. S. M. S. to P. M. S., if possible.

(c) This is an excellent suggestion and will be favourably considered. These municipalities shall be provided with health officers as soon as funds are available.

(d) This is already under the consideration of the Government and some decision will be arrived at soon. The matter will be circulated to other Departments before final decision can be made.

(e) The D.P.H., U.P., who was also present at the time of the deputation strongly supported this point. The adviser promised to consider the matter as soon as financial condition of the Government improves.

(f) The Adviser was told that the S.H.O's maintain a Tonga and a horse and they have to give a maintenance certificate. The officers cannot use a cycle as they have to carry certain apparatuses for medical examination. The matter will be considered and if Government cannot increase the allowance, the condition of the maintenance of the conveyance may be waived.

Suggested Amendments to the Rules and Regulations of the A. I. M. L. A.

[*The following Branches have given notice of undermentioned amendments for consideration at the ensuing Ahmedabad Conference*]

Gujarat Branch, A.I.M.L.A., Ahmedabad.

The meeting of the Sub-Committee to consider the changes in the present constitution of the Association was held at 4 p.m. on 11-4-1940 at Dr. Jamiatram's Dispensary when the following members were present :—

1. Dr. Jamiatram B. Desai (in chair)
2. Dr. Matubhai K. Pandya
3. Dr. Keshavlal J. Bhatt
4. Dr. Amratlal P. Shukla.

1. **Rule No. 1 :**—*Add* : Who shall not be either a Government, Municipal, Local Board or Railway servant.

2. **Rule No. 22 :**—*Add* the same as above in the end.

3. **Rule No. 29 :**—*Add* after 'who shall be elected annually' and who shall be eligible for re-election every year for a period of 3 (three) years but not exceeding this period.

4. **Rule No. 37 :**—Add (a) In case no Branch is prepared to invite the Conference for the year, the Conference shall necessarily be held at a central place like Delhi or Bombay at the expense of the Association.

(b) The Association shall not spend more than Rs. 1000 (thousand rupees) towards expenses for holding such a Conference.

5. **Rule No. 68 :**—(a) No branch shall be entitled to send its delegates to the annual Conference unless it has an existence of at least 12 months (one full year) at the time of election of the delegates.

(b) No member shall be eligible for election as a delegate to the annual Conference unless he has already been a member of the Association for upwards of 24 months (full two years) at the time of issuing election papers.

(c) Those branches which do not exercise their right of voting for the election of the President even at the time of this second circular shall loose their claim (right) of sending delegates to the Conference.

6. **Rule No. 80 :**—*Add* after 'Finance Committee' "duly countersigned by the President of the Provincial Branch" before 'through the General Secretary.'

(a) No circular to the members of the Provincial Standing Committee be issued by the Secretary, Provincial Branch, without the approval of the President of the Provincial Branch.

(b) The replies received on such circulars shall be communicated to the President, Provincial Branch, by the Provincial Secretary for his (President's) information.

7. **Rule No. 66 :**—After this rule *add* : The President of the Provincial Branch is vested with all powers to supervise and control the office of the Provincial Secretary and all Branch Secretaries under his Province and shall see that all secretaries and office-bearers carry out their duties faithfully, regularly and in consistence with the rules, regulations, bye-laws, and resolutions of the Association.

8. **Rule No. 252 :**—(a) The number of branches to form quorum for this purpose shall either be one-fourth of the number of branches on the list of the Association or 30 (thirty) branches whichever number is less.

(b) In case of non receipt of the nomination papers from the Branches, as required by Rule No. 252 (a) above, the General Secretary shall issue a fresh circular to get the nomination papers from as many more Branches as possible.

(c) This second circular shall be a final one and the election of the President shall be decided according to the proposals (voting papers) received by this time.

9. **Rule No. 256 :**—Insert the following : That the election of the President for the Annual Conference shall be finally decided by the votes of the various provinces concerned and not on the individual votes of the Branches. The person who gets the maximum number of votes from among the provinces should be selected as President for the ensuing Conference.

10. After add : 'Not less than four months.....shall ask the branches *'add*: who have a right of representation for the election of the President at Annual Conference.

11. **Rule No. 65 :**—The quorum to decide the election for the Provincial Branches shall be 1 4 (one-fourth) the number of Branches existing on the list of the Provincial Branch on the 1st of October every year.

12. There should be a central permanent office of our Association at a most convenient place with a permanent staff and a Superintendent attached to it.

That the *Indian Medical Journal* be conducted from this Central Office.

13. That the clerk of the Finance Committee must necessarily have a knowledge of account-keeping and book-keeping.

14. The complete list of the members on the roll of the Association be supplied to every branch, once a year, say in July, by the General Secretary to facilitate the election of the President for the next Conference.

15. When a Branch thinks that the selection of the President for the Annual Conference is one who has been found to have acted not in the interest of the Association or who may have misused the monies of the Association during the tenure of his office, the matter should be placed before the Standing Committee for their decision, before the final election of the President is decided as to whether such a person be elected as a President or not.

16. That the above procedure be adopted with regard to any of the office-bearers appointed at the Annual Conference.

17. That to give effect to the resolutions passed at the last Indore, Agra and Gauhati Conferences, a certain fixed amount of rupees out of the present balance of the Association funds be transferred into a Trust in the name of the Imperial Bank of India and that the same Bank be authorised to manage the accounts, to draw its interest, and to pay the same to the General Secretary without using a single pie out of the fixed deposit unless ordered to do so by a resolution passed at the Annual Conference or at a meeting of the Special Conference.

18. That all circulars except confidential, issued by the General Secretary be printed in the *Indian Medical Journal* regularly with their final decisions to enable the members to know how the Association's work is progressing.

19. That all possible attempts be made to have the Annual Conference of the A.I.M.L.A. and that of the All-India Medical Association at the same place or as near as possible but on different dates so as to enable delegates and visitors to attend both the conferences conveniently.

HISSAR BRANCH

Proceedings of an emergent meeting of Hissar Branch of the A.I.M.L.A., held on 18-5-40 at Agroha to consider the changes in the Rules and Regulations of the Association.

Six members were present.

1. Resolved that the following changes be adopted at the next Ahmedabad Conference.

Rule No. 18 :—(Section 3, Constitution) Under Rule No. 18, instead of '2/3' in the 2nd line, it should be read as '4/5' i.e., "It can be changed, modified or extended by the AnnualConference of the Association by a majority of **4/5** of the votes of the delegates of the Annual Conference provided due notice of 3 months to that effect is given as calculated from the date of publication in the *Indian Medical Journal.*

Rule No. 30 :—(Section 3, Constitution). Under Rule No. 30 sub-para (1) after Ex-Presidents of the Conference add, 'Ex-General Secretaries of the Association."

Under Sub-Para (12) there should be '2 members from each province' instead of 1 member from each province i.e., it should read "Two members from each province as nominated by Branches of that Province."

Rule No. 44:—(Section 4, Organisation) In Sub-Para (1) of Rule No. 44 please add in the fourth line after Provincial and District Conferences *Subject to Rule 267 and be elected and any office-bearer of the Association.*' It should read, "Ordinary members shall have the right to vote in any Branch meeting of which he is a member, shall have the right to be elected as a delegate to the Annual Provincial and District Conferences," subject to rule 267 (1) and be elected as any office-bearer of the Association; shall get a copy of the *Indian Medical Journal* free."

Rule No. 55 :—Under rule No. 55 sub para (1) instead of not less than 5 members' it should be '*not less than 10 members.*' It should read, "*Not less than 10 members* of the Association can form a branch of the Assso-ciation in any city, taluk or town within India and Burma."

Rule No. 68 :—Under Rule No. 68, instead of 'upto 25 members' it should be "*from 10 upto 25 members,*"

Rule No. 9 :—be deleted.

Rule No. 267 :—(Section 8, "Delegation under Rule No. 267, please add para 4,," Each delegate to the Annual Conference of the A.I.M.L.A., should pay Rs. 7/- as delegation fee. The amount thus collected should be utilized by the Reception Committee for its expenses."

Rule No. 269 :—(Section 8 Subjects Committee) Under Rule No. 269 in the 2nd line instead of "2 members from each province" it should be '5 members from each province.' It should read :—"The Subjects Committee shall consist of ex-officio delegate and 5 *members from each province* elected by the representative Branch delegates from that province.

LETTER TO THE EDITOR

A. I. M. L. A. Family Fund

I am glad that the Directors of the Family Fund have at long last issued a statement regarding the Fund. It will, to a certain extent at least, clear the misunderstanding created in the minds of the members of the Fund by the letter of Dr. Shah in the *journal* of November, 1939. The members will now realise that the "*actuary's opinion was taken in order to continue the Fund according to the Insurance Act*" and *not because* "*the majority of the members of the Working Committee intended*" etc. as Dr. Shah wants the members to believe. Nor is it correct that "they have sought the sanction of the Insurance Superintendent for their scheme."

I would therefore appeal to the members not to be scared away by the misrepresentations made by Dr. Shah. It is clear from the Director's statement that *no changes are contemplated unless the opinion of the General Body of Members is taken.* The Working Committee and the Board are only preparing the ground to place before the General Body the various possibilities (1) whether the Fund can continue working as heretofore, (2) If not, whether it can be worked to satisfy the Insurance Act, (3) If it is to be wound up, what is the procedure and how are the assets to be divided and how much each existing member will get for the amount he has contributed.

Unless these questions are answered and placed before the General Body for their final opinion it is not possible for them to know which scheme is in the best interests of the members. The working Committee and the Board of Directors are only doing this much and will then inform the General Body. It will be then that the General Body could decide about the future of the Fund which will be to the advantage of the majority.

U. B. NARAYAN RAO,
Member, Family Fund.

Rule No. 270 :—Under Rule No. 270 in place of 'shall take part in its deliberations' it should be "shall vote but all the delegates may take part in its deliberations.' It should read, "No member or delegate other than the member of the Subjects Committee *shall vote but all the delegates may take part in the deliberation.*'

Resolution No. 2.

This Branch requests in the interest of the Association that the words Government servant and Private Practitioners should not be allowed to appear in any of the rules of the A.I.M.L.A., as it would weaken our cause and our critics might have an opportunity to create division in our ranks. Further resolved that the General Secretary A.I.M.L.A., may be requested to send the above Resolution Nos. 1 and 2. to the Editor, *I.M.J.*, for favour of publication and for including in the agenda of the proposed Annual Conference to be held at Ahmedabad.

SERVICE NOTES

U.P. (P.S.M.S.)—May 1940.

Dr. Mohd. Ibrahim, Neoria, Pilibhit to Police, Gorakhpur.
,, M. P. Varma, S C. King Edward VII Hospital Benares, promoted to P.M.S.
,, K. C. Bhattacharji, Dist. Jail, Benares to Central Jail, Benares.
,, Md. Anwarul Haq, Reserve duty, Benares, to D. J. Benares.
,, S K. Dwivedi, Reserve duty, Cawnpore, granted leave.
,, Jagdemba Prasad from leave to C. J. Fatehgarh.
,, M. L. Gupta, Central Jail, Fatehgarh, Reserve duty, Fatehgarh.
,, Chiranji Lal, leave to Ghetampur, Cawnpore.
,, Ram Chandra, Ghetampur, to Reserve duty, Cawnpore.
,, A. P. Dubey, from leave to Reserve duty, Lucknow.
,, M. B. Agarwala, Usehat, Budaun to leave.
,, Himmat Singh, Jwalapur, Saharanpur, to Police, Saharanpur.
,, Subhan Ali, Gangoh, Saharanpur, to Neoria, Pilibhit.
,, Dewan Singh, from leave to Jwalapur, Saharanpur.
,, T. S. Saksena, Bazpur-Naini Tal, to leave.
,, Raj Bahadur, Jalesar, Etah to Kasganj, Etah.
,, Raja Ram Shukla, Reserve duty, Budaun, to Jalesar, Etah.
,, Bindeshwari Singh, R. D. Ghazipur to Shankargarh, Allahabad.
,, Hira Lal Seth, Shankargarh, Allahabad to C. J. Benares.
,, Md. Anwarul Haq, D. J. Benares to 2nd s c K. E. VII Hospital, Benares.
,, B. M. Banerji, Lachimpur Forest Dispy., to Reserve Duty, Gorakhpur.
,, M. P. Srivastava, Kurri Sudhauli, Rae Bareli to leave.
,, Ram Chandra, Tanda, Fyzabad, retired.
,, Nathu Ram Sharma, from leave to Bhelupra, Benares.
,, Lal Mohan Nath, Bhelupur, R. D. Benares.
,, Md. Hanif, Rudauli, Bara Banki, to leave.

BOMBAY (P.S.M.S.)—16-4-40 to 15-5-40.

Dr. V. Y. Ranadive, H. M.'s House of Correction Bombay, granted leave for 30 days.
,, V. V. Nadkarni, S. C. Civil Hospital, Nasik, granted leave for 2 months.
,, R. D. D'Souza, from leave to Alibagh.
,, M. G. Vyas, Godhra, granted leave for 2 months.
,, H. G. Desai, II Asst., Civil Hospital Godhra to Sub-charge Hospital, Godhra.
,, M. N. Vaidya, Poona to Godhra.
,, S. S. Pande, Belgaum, to Niwasa, Dt. Ahmednagar.
,, B. S. Vaze, Kaira to Scarcity duty, Broach and Panch Mahals.
Dr. Y. T. Bhalerao, General Duty, Civil Hopsital Broach to 2nd Asstt. Civil Hospital, Broach.
,, Y. R. Athavale, Khergaum, Dt. Surat to Scarcity duty, Broach and Panch Mahals.
,, D. T. Kadam, Poona, to Akluj, Sholapur Dist.
,, V. S. Deshpande, Poona to Nasik.
,, C. R. Kothamdi, Nandgaon, Dist. Nasik, leave for 4 months.
,, P. R. Gunaji, Poona to Pusesavdi, Dist. Satara.
,, Y. S. Ambiye, Pusesavli, Dt. Satara, leave for 1 month and 11 days.
,, M. K. Damle, Yeravada, to Ahmednagar.
,, B. N. Shukla, Halol, granted leave for 2 months.
,, G. V. Pandit, Poona to Halol.
,, D. F. Patel, Poona, to Khergaum, Dt. Surat.
,, L. H. Patil, from leave to Poona.
,, D. R. Vaidya, from leave to Poona.
,, S. S. Pande, Newasa to Hungund, Dt. Bijapur.
,, M. D. Desai, from leave to Dholka, Ahmedabad.
,, R. J. Trivedi, Broach, granted leave for 3 months.
,, (Mrs.) K. P. Makasari, on return from leave to Civil Hospital, Nasik.
,, G. T. Shah, from leave to Erandol, East Khandesh.
,, B. R. Sathe, Ahmednagar to Belgaum.
,, N. M. Vakharia, Umreth, granted leave for 2 months.
,, H. N. Sayed, Broach, to Karanj, Dist. Surat.
,, J. M. Bhagat, Ahmedabad, to Umreth, Dt. Kaira.
,, P. S. Babre, H. M.'s House of Correction, Bombay, to G. T. Hospital, Bombay.
,, V. B. Gokil, Karanj, granted leave for 3 months.
,, C. N. Vyas, Dholka, to Nasik.
,, H. V. Patva, Sindhkeda, granted leave for 2 months.
,, A. L. K. Pathan, Ahmedabad, Sindkheda, W. Khandesh.
,, V. C. Parikh, Ahmedabad to Nasik Road.
,, C. P. Parmar, Nasik, granted 2 months' leave.
,, C. K. Bhavsar, Poona, to Kapadvanj.
,, M. A. Patil, Hungund, Plague duty, Bijapur Dist.
,, M. A. Ghori Erandol, E. Khandesh to Civil Hospital, Belgaum.
,, S. V. Savant, Plague duty, Sholapur Dist. to Thana.
,, U. C. Kambolja, Kaliwadi, granted leave for 20 days.
,, A. S. Sayed, Ahmedabad to Kaliwadi, Dist. Surat.
,, D. B. Malshe, Plague duty, Sholapur Dist. to Civil Hospital, Satara.
,, G. V. Kulkarni, Dharwar to Haveri, Dt. Dharwar.
,, B. D. Gadre, Haveri, granted leave 2 months.
,, H. V. Wagh, Plague duty, Sholapur, to Belgaum.
,, M. A. Patil, Ahmedabad, Dharwar.
,, B. R. Sathe, Alibag, to Ahmednagar.
,, Khan Saheb A. D. Patel, Bombay, to Ankleshwar.
,, C. K. Bhavsar, from leave to Poona.
,, R. V. Shikhare, retired on 19-4-40.

The following candidates have been taken up in the S. M. S.

Dr. A. S. Sayed, Civil Hospital, Ahmedabad.
,, G. K. Kowtal, Civil Hospital, Karwar.

ASSOCIATION NOTES

[*The proceedings printed below refer to the Branches and Committees of the A. I. M. L. A unless otherwise stated.*]

PROPERTY COMMITTEE

Resolution No. 1 As the balance in the Post Office Savings Bank with the Hony. Treasurer, A.I. M. L. Association, is rather high, it is therefore resolved that the Government Securities (G.P Notes) of the face value of Rs. 6,000/— (Rupees Six Thousand only) may be purchased through the Punjab National Bank, Karnal. (Punjab).

Resolution No. 2: Resolved that 3½ G.P. Notes of the face value of Rs. 5,000/—(Rupees Five Thousand) be purchased through the Post Office, Madras, out of the sum realised by the President, A.I.M.L. Association, from the redeeming of the Government Securities worth Rs. 5000/— (Rupees. Five Thousand only)

Resolution No. 3: Resolved that the President, A.I.M L. Association., be authorised to withdraw the amount lying in the Postal Savings Bank at Thyagarayanagar Post Office leaving behind a balance of Rs. 50/—(Rupees fifty only) in the account and remit to the Imperial Bank of India, Delhi by draft.

Resolution No. 4: In consideration of the fact that the undernoted three cash certificates for Rs. 2,500/ (Rupees Two Thousand and Five Hundred only) mature on the dates noted against them, and the amount being a part of the reserve fund of the All-India Medical Licentiates' Association, it is hereby resolved that the cash certificates (mentioned below) of the amount discharged be repurchased:

1. No. C/2 010846 for Rs. 1000/- mature on 5—3—1940.
2. ,, C/2 010847 for Rs. 1000/- mature on 7—3—1940.
3. ,, G/2 010967 for Rs. 500/- mature on 5—3—1940.

STANDING COMMITTEE

Copy of Resolution No. 2 of 1940 passed by the members of the Standing Committee.

"Resolved that to commemorate the memory of the late Dr. S.L. Sharma who toiled hard for the uplift of the Licentiates in his capacity as a member of long standing duration, a worthy colleague and an office-bearer involving great responsibility in the Association, the month of September, 1940, be styled as "The Late Dr. S. L. Sharma Memorial Month" whereby all non-members of our class be admitted without the usual admission fee of Rs. 2/-, that is Rs. 4/- per annum for membership."

Votes for.....14.
Against.....1.

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Bareilly (U. P.) Meeting held on 11-4-40 with Dr. Babu Ram in chair. 5 members were present.

Proceedings of the last meeting were read and confirmed.

Read G.S. Circular No. 45, 2 and 3 dated 28-12-39, 20 1-40 and 5-2-40 respectively.

Read Provvincial Secretary's letter No. 481 dated 28-3-40, and resolved that the resolutions Nos. 1 and 6 of this Branch meeting held on 2-11-39 be taken into action at an early date.

Read copy of G.O. No. 347/v-500 dated 6-2-40 and noted with regret.

Resolved that the I.G.C.H. (U P.) be requested to kindly issue a circular to the effect of putting a stop to the growing practice of inspection of branch dispensaries by the Secretaries of the local bodies, and other such persons who are neither gazetted officers nor the representatives of the public.

Resolved that this Branch congratulates R. S. Dr. A. D. Bhandari, P. S. M. S. on his promotion to P. M. S. cadre.

That the contingent bill from 25-12-39 to 10-4-40 be passed.

Tingri Valley (Assam): Meeting held on 7-4-40 with Dr. D. D. Sarma Baruah in the chair.

Minutes of the last meeting read and confirmed.

Resolved that the contingent bill from January to March 1940, amounting to Rs. 3-11-0 only be passed.

Scientific paper on "Management of marasmic babies in tea garden practice" was read by Dr. K. C. Bhattacharjee.

Juri Valley (Assam): Meeting held an 29-3-40 with Major S. J. Vere Fox in chair. 12 doctors were present.

Resolved that the proceedings of this meeting be sent to the Provincial Secretary for his information and record.

Resolved that this Association heartily congratulates Hon'ble Dr. Mohendra Nath Saikia, L. M. P., on his appointment as Minister in charge of Agriculture and Veterinary Deptt. with the Government of Assam.

Resolved that, owing to the growing unemployment among medical men in this province, the Government be requested to find ways and means for employing the unemployed.

Resolved that the Provincial Secretarybe requested to grant adequate funds for propaganda work for enlisting members.

Resolved that either at Sylhet or at Habiganj arrangement should be made for holding the next provincial conference.

Resolved that copies of resolutions Nos. 2 and 3 be sent to the Hon'ble Chief Minister, Hon'ble Minister Dr. Saikia, and to the Hon'ble Minister for Public Health.

Office-bearers for 1940. Drs. U.K. Purkayastha—President, Dr. S. K. Dutta—Hony. Secretary, Dr. H. N. Chowdhury Auditor. Members of the Managing Committee: Drs. B. B. Kar, K. N. Das, K. C. Ghosh, T. K. Sen Gupta, H. N. Chowdhury.

The Secretary addressed the meeting, explained the aims and objects of the Association and requested all to join without delay.

Dr. H. N. Chowdhury read an interesting case note on "Stone under the tongue" with demonstration. Dr. J. M. Dhar read an article about Helminthiasis. Dr. A. C. Chakravarty, Laboratory Assistant, demonstated the heads of "Tape Worm".

Jorhat (Assam): Meeting held on 18-4-40 with Dr. A. Hakim in the chair. 7 doctors were present.

Read and confirmed the minutes of the last meeting.

Audited account of this Branch was passed for Rs. 5-0-6.

Read Provvincial Secretary's circular dated 14-4-40 and noted contents. The Provincial Secretary is requested to convey our thanks to the Secretary, Indian Tea Association, Assam Valley, for his kind assurance about employing registered practitioners in the tea estates in future.

This meeting expressed great pleasures at the services rendered by Dr. Bhattacharjee to the Association.

Nadiad (Kaira), Bombay.

Meeting held on 21-4-'40 with Dr. J. B. Desai in the chair. 8 members present.

Dr. J. B. Desai then read the message of good wishes from Dr. Benjamin and afterwards read the past history of the Association from the beginning to the present date and narrated the progress and benefit directly or indirectly the Association had done to our whole class.

Office-bearers of the Managing Commitee: Drs. S. J. Mehta President, R. M. Desai—Secretary, Members: Drs. Umaraosingh R. Thakore, Gordhanbhai V. Patel, Ramnik H. Desai.

Chapra (Bihar). Monthly meeting held on 3-5-'40.

Considered the rules the regulations for the recruitment of S. A. S. in the emergency branch of I. M. D. and resolved unanimously that the pay of warrant officer, class 2, is quite inadequate. The title of Jamadar is not a quite suitable denomination for any medical man.

Nadia (Bengal). (1) Monthly meeting held on 7-4-40 with Dr. K. R. Roy in the chair. 9 members were present.

Minutes of the last meeting were passed.

Branch accounts for the month of March, 1940 were examined and passed.

Scientific discussions about several diseases current in this city were made.

Accounts of the last Provincial Conference were examined and passed.

(2) Monthly meeting held on 13-5-40 with Dr. K. R. Roy in the chair. 6 members were present.

Minutes of the last meeting read and confirmed.

Accounts were examined and passed.

G. S. circulars Nos. 9 and 10 of 1940 were read and discussed.

Scientific discussions were made.

Dacca (Bengal). (1) Meeting held on 1-2-'40. 12 members were present. Resolved that the first Sunday of every month be fixed for the branch meeting.

Resolved that Dr. A. B. Mukherjee be elected as the President of the ensuing Bengal Provincial Conference to be held at Krishnagor.

Resolved that any two of the Drs. D. N. Basak, J. M. Sen Gupta, B. L. Roy will represent this Branch at the said Conference.

G. S. circular No. 2 and the letters from Drs. K. R. Roy and A. B. Mukerjee were read and the Secretary is requested to reply accordingly.

(2) Meeting held on on 3-3-'40. 7 members were present.

G. S. circular No. 3 was read.

Resolved to contribute at least Rs. 10/ towards the ensuing Bengal Provincial Medical Conference Fund.

Resolved to move the following in the said Conference: "Urges the Provincial Secreatry to wait on deputation to the authority for the removal of the dual system of Medical education. The Surgeon General be moved to take some members in the admission board of the medical schools from the licentiates medical practitioners. Draws the attention of the Chairman of the Dacca Board of Inter. and Secondary Education to abolish the ban that had been imposed on the licentiates unreasonably. No Branch should take any part in the election campaign in favour of any candidate. Separate rules should be framed for the management of the provincial and local branches."

(3) Meeting held on 7-4-'40. 13 members were present.

Accounts of the year 1939 were audited and passed.

Secretary's annual report was accepted.

Office-bearers for 1940: Drs. L. K. Sen Gupta-President, K. N. Bose, K. P. Chakravorty and J. M. Sen Vice-Presidents, D. N. Basak Secretary and Treasurer, N. C. Palit-Auditor, P. Das and S. K. Guha-Joint Secretaries. Executive Members: Drs. S. C. Roy, Sahabulla Khan, J. K. Majumdar. Pramatha Ghose, Bibhuti Sarker, Khan Saheb M. M. Khan, B. L. Rai, Jaideb Sen, S. Bagchi, A. C. Rai, M. M. F. Bhakat, Harsha Nath Sen.

Scientific papers on chemotherapy and on early diagnsis of diphtheria (chemically) were read by Dr. H. N. Sen.

Calcutta (Bengal). (1) General meeting held on 4-1-40

Resolved that the annual reports for the years 1937-38 and 1938-39 with statement of accounts made by the Secretary be approved.

That with a view to re-organise the branch and to collect subscriptions regularly from the members, Mr. Bibhuti Bhusan Mukerjee be appointed as bill collector at Rs. 7 per month with effect from January 1940 and that the members be requested to subscribe annas eight only per month for the local Branch.

(2) General Meeting held on 31-1-40.

Resolutions: Resolved that Dr. Ahi Bhusan Mukherjee be elected as President of the Bengal Provincial Conference and the following members be elected as delegates: Drs. Mrs. N. B. O' Brien, K. P. Sen, A. M. Mallik, A. D. Mukerjee, A. N. Roy, S. L. Roy, S. Datta.

That last year's office-bearers be re-elected.

That resolution re. the improvement of medical education in this Province so as to be recognised by I. M. C. be moved for consideration in the Bengal Provincial Conference.

(3) Managing Committee meeting held on 6-3-40.

Resolution: that Dr. K. P. Sen be requested to represent this Association at the Calcutta Public Medical Service scheme of the I. M. A. Calcutta Branch.

That G. S. circular No. 3 be recorded.

In view of the fact that in accordance with the Bengal Dentist Act, 1939, a Dental Board will come into existence, this Association requests the Government of Bengal to have 2 members of the medical licentiates in the said Board as classified in the Act, viz., 1 medical licentiate practising dentistry for the group of dental practitioners and 2 for the group of registered medical practitioners.

(4) General meeting held on 21-4-40.

Resolution: Resolved that the members be informed of the circular of the D.G., I. M. S. re. recruitment of I. M. D. Sub-assistant surgeons.

In the opinion of this house, the Government of India should consider the promotion of the S. A. S. joining I. M. D. for special service, so that they may gradually get promotion from the rank of jamadars to higher ranks which, if given effect to, will attract more members for this emergency service.

Resolved that suggestion of G. S. for observing September 1940 as memorial month in memory of the death of Dr. S. L. Sharma be approved and further resolved that the Standing Committee be requested to observe the month of October, 1940 as memorial month in memory of the death of Dr. Satkari Ganguly of Bengal and that members be recruited during these two months on receipt of Rs. 1/- only as subscription.

Mymensingh (Bengal): Meeting held on 20-4-40. 9 members were present.

Resolutions to raise the standard of training in medical schools to the University standard and that there should not be any other medical qualification but the university degree were upheld by this Branch.

Contingent bills from 1-1-40 to 31-3-40 for Rs. 31-3-6 was scrutinised and passed.

All the members were requested to recruit new members and thereby make the Branch more effective.

24 Pargs. (Bengal). (1) Monthly meeting held on 12-4-40. 12 members were present

Minutes of the last meeting were read and confirmed.

Proposal to hold the next Provincial Conference in this district was postponed for consideration in the next meeting.

(2) Monthly meeting held on 11-5-40 with Dr. S. Circar in the chair. 8 members attended.

Minutes of the last meeting read and confirmed.

Circular of D. G., I. M. S. for volunteers for Emergency Branch of the I. M. D. was circulated to the members.

Dr. A. T. Chakrovarty read a paper on measles.

Madras. Under the auspicious of the above Association a delightful dinner was arranged at "MYSORE CAFE" on 5.5.1940 at 8 P. M. to bid farewell to Drs. G. Subbarayadu, V. Suryanarayana Rao, Ex-Secretaries of the above Association. 100 doctors attended the dinner.

Drs. D. V. Venkappa, A. Viswanathan, K. Rama Rao, T. V. Ranganadha Rao and V. Ramakamath spoke about the Association activities and the services rendered by the two distinguished guests to the medical profession, and our Association in particular.

From among the guests Drs. T. S. Tirumurthi, and U. Krishna Rao spoke about the good qualities of the two distinguished members and their services to the medical profession and the Association.

After the dinner a general body meeting was held and the following resolutions were passed unanimously.

Resolution 1. The Madras Branch of the All India Medical Licentiates' Association places on record its high sense of appreciation and gratitude for the kind services rendered to the class of licentiates especially to those working in the Government Royapuram Hospital, by Rao Bahadur Captain P. Krishnaswami, M.B. & C. M.; M. R. C. P. Superintendent of Government Royapuram Hospital and prays for his long life and prosperity on the eve of his retirement by the end of this month.

Resolution 2. In view of the vast improvements made to the Government Royapuram Hospital by way of constructing new buildings and of opening of various new departments by the present Superintendent Rao Bahadur Captain Krishnaswami, M.B. & C.M., M.R.C.P., and in view of the fact that the total accommodation of the hospital has been increased by over a hundred by constructing a big new surgical block on the northern side of the Hospital by his untiring efforts, this Association requests the Surgeon General and the Government of Madras, to name the new surgical block after Captain P. Krishnaswami, so that the name of such an unselfish and energetic officer may be perpetuated in that Hospital.

Resolution 3. The above resolutions to be communicated to the Surgeon General, the Government of Madras, Captain P. Krishnaswami and the press.

Resolution 4. This Association congratulates Dr. G. J. Naidu on his promotion to the grade of an assistant Surgeon and thanks the Surgeon General and the Government of Madras for the same.

(2) An urgent Committee meeting of the above Association was held on 12-5-1940 to consider the memorandum of the Government with regard to Honarary Scheme at the residence of Dr. K. Rama Rao, 30, Varada Muthiappen St., Madras.

Resolution No. 1. Accounts for the month of April 1940 for Rs. 7-8-0 were approved.

Resolution No. 2. The Honorary Scheme was discussed in detail and finally it was resolved to have a Sub Committee to draft a memorandum to the Government on the lines suggested by the Committee.

Resolution No. 3. Resolved that Dr. A. Viswanathan be authorised to prepare a memorandum to the Government and to the University requesting to relax the rules regarding the admission of Licentiates to Madras Medical College and the agitation be continued until favourable results are achieved.

Hazaribag. Meeting held on 13-6-1940

THE FOLLOWING RESOLUTIONS WERE PASSED:—

1. Confirmed the proceedings of the last meeting, dated 14-1-40.

2. This Committee welcomes our President, Dr. Banerji back from the Military Medical duty and a vote of thanks is unanimously passed, to Dr. M. H. Khan, Sub-Assistant Surgeon, Police Hospital, Hazaribagh for his having rendered service during the absence of Dr. Banerjee.

3. Considered the report of Dr. B.C. Chatterji, regarding the T.A. for attending Court as an expert witness in Medico-Legal Cases that has been reduced to the actual lorry fare plus six annas daily allowance in place of four annas per mile plus Rs. 2 per day as professional fee as intimated by the District Magistrate, Hazaribagh.

Resolved that the Deputy Commissioner be moved to kindly consider the heavy reduction made in the T. A. and professional fee.

4. Considered the grievances of the Medical Officer incharge of the Government and of the District Board Charitable Dispensaries regarding the casual leave in the following respects;—

(a) that the relieved Officer is to bear the T. A. etc. of the relieving Officer in the case they are granted casual leave for less than seven days in the District Board service.

(b) if a relief is not available, they are not granted leave for more than 24 hours, however the emergency may be.

Resolved that the District Board and the I. G. C. H., Bihar, be moved to kindly consider this hardship. Resolved also that the Chairman of the District Board be requested to please make arrangements for the grant of leave of the Medical Officer at least for five days without sending any relieving Officer.

5. Put up the following points:—

(a) Whenever any Civil Assistant Surgeon goes on leave he should be relieved by the Civil Assistant Surgeon. In case of the Civil Assistant Surgeon is relieved by a Sub-Assistant Surgeon the latter should get the pay and allowances of the Civil Assistant Surgeon for that period and this should be noted in the service Book.

Resolved that the Inspector General of Civil Hospitals, Bihar be moved in this matter.

6. Resolved that the Secretary should move to the Inspector General of Civil Hospitals for kindly intimating the cause for not promoting the Sub-Assistant Surgeons to the rank of the Assistant Surgeon since 1937.

7. Resolved that Dr. B. C. Chatterji be authorised to approach all the members and to realise subscription of this Association from them.

8. Resolved that the Secretary of the Association be authorised to continue his membership of the Indian Medical Association only to safeguard our own interest there (*vide* Letter No. 5665, dated 27-9-39, from the General Secretary, All India Medical Licentiates Association) but the others are requested to discontinue their membership from the Indian Medical Association immediately and inform the Secretary of their having done so.

Consolidated Accounts of the All-India Medical Licentiates' Association

MARCH 1940

Receipts

		Rs.	A.	P.
To Subscription (old and new members)...		829	6	0
,, Advertisement	...	836	3	8
,, Miscellaneous	...		—	
Total	...	1665	9	8
Balance from last month	...	68629	15	6
	& £	157	17	10
Grand Total	...	70295	9	2
	& £	157	17	10

DETAIL OF BALANCES

		Rs.	A.	P.
3½% War Loan	£	157	17	10
New Loans	...	8200	0	0
13 Shares of the Bactero-Clinical Laboratory Ltd.		85	0	0
Omera Gold Medal Account		443	6	11
5 Years Cash Certificates	...	6511	14	0
G. P. Notes	...	10891	9	0
Govt. Bond for 1943	...	5600	0	0
Govt. Bond for S. S.	...	5000	0	0
Imperial Bank of India, Delhi	...	86	3	3
With Dr. S. P. Sen Gupta		793	12	1
Postal Savings Bank with President	...	7661	1	1
With Branches	...	285	1	9
With Editor :—				
In Bank 1779 8 6				
In hand 59 3 5				
In stamp 31 14 0				
		1870	9	11
With General Secretary :—	...	17	8	6
With Treasurer :—				
In hand 11 1 3				
In Bank 1839 11 6				
P. O. S. Bank 19394 13 6				
		21245	13	3
Grand Total	... Rs.	68692	5	9
	£	157	17	10

Expenditure

		Rs.	A.	P.
By Printing *I. M. J.*	...	239	5	6
,, Establishment	...	414	0	0
,, Rent	...	80	0	0
,, Stationery	...	4	11	0
,, Postage	...	191	14	3
,, Miscellaneous	...	70	9	9
,, Propaganda Work	...	27	9	0
,, Branches	...	415	1	0
,, Loan returned to Gen. Secy.	...	7	6	3
,, Dr. V. V. Oak, advance adjusted	...	2	0	0
,, Audit fees	...	60	0	0
,, Subscription to foreign Journals	...	90	3	8
Total	... Rs.	1603	3	5
Balance in hand	... Rs.	68692	5	9
	& £	157	17	10
Grand Total	... Rs.	70295	9	2
	& £	157	17	10

APRIL 1940

Receipts

		Rs.	A.	P.
To Subscription (old and new members)		553	11	0
,, Advertisement	...	1363	8	10
,, Other receipts	...	0	8	0
Total	... Rs.	1917	14	10
Balance from last month	... Rs.	68692	5	9
	& £	157	17	10
Grand Total	... Rs.	70610	4	7
	& £	157	17	10

DETAIL OF BALANCES

		Rs.	A.	P.
3½% War Loan	£	157	17	10
New Loans	...	8200	0	0
13 Shares of the Bactero-Clinical Laboratory Ltd. 1936	...	85	0	0
Omera Gold Medal Account	...	443	6	11
5 Years Postal Cash Certificates	...	6511	14	0
G. P. Notes	...	10891	9	0
Govt. Bond for S. S.	...	5000	0	0
Govt. Bond for 1943	...	5600	0	0
Imperial Bank of India, Delhi	...	86	3	3
With Dr. S. P. Sen Gupta	...	793	12	1
Postal Savings Bank with President	...	7661	1	1
With Branches :—	...	285	1	9
With Editor :—				
In hand 80 7 8				
In Bank 2146 12 5				
In Stamps 39 9 9				
		2266	13	10
With General Secretary	...	103	2	0
With Treasurer :—				
In P. O. S. Bank 19394 13 6				
In P. N. Bank 1955 0 0				
In hand 50 13 3		21100	10	9
Grand Total	... Rs.	69829	0	8
	& £	157	17	10

Expenditure

		Rs.	A.	P.
By Printing *I. M. J*	...	528	11	2
,, Establishment	...	368	0	0
,, Rent	...	50	0	0
,, Stationery	...	20	1	6
,, Postage	...	155	9	9
,, Miscellaneous	...	19	1	6
,, Other Printing	...	9	1	0
,, Propaganda work	...	22	10	0
,, Branches	...	19	8	0
,, Payment to Contributors	...	15	0	0
,, Advt. Commission	...	5	0	0
,, Furniture	...	43	6	0
Total	... Rs.	1281	3	11
Balance in hand	... Rs.	69829	0	8
	& £	157	17	10
Grand Total	... Rs.	70610	4	7
	& £	157	17	10

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Maternal Mortality in Calcutta

The rate of maternal mortality in our country is not capable of being ascertained with any reasonable degree of accuracy owing to the absence of compulsory registration of births and deaths in rural areas, and defective birth registration in urban areas.

The present estimates are based on provincial Health Reports and maternity hospital records. The former is none too reliable and the latter form so small a series that no correct conclusion could be drawn.

Megaw (1933) made an extensive survey of rural areas, and basing his conclusions on certain public health aspects of village life he estimated 24·5 deaths per 1000 births. Margaret Balfour (1925) studied 11,343 hospital deliveries and found a mortality rate of 18·4 per 1000 births. Approximately the same rate was found in Madras in a survey of four large municipal areas done by the Public Health Department in 1927, while in Assam it was found to be so high as 42 per 1000.

We have now the latest report of Neal Edwards[1] which embody the results of the attempt at per evaluation of the maternal mortality rate at Calcutta, and the causes of maternal deaths. She chose for investigation the area under the control of the Calcutta Corporation, and the period of study and observation extended for full one year, from June 1936 to May 1937. She found that it was by no means easy to assess the true rate of maternal mortality on account of the same kind of difficulties met with by previous workers, viz., defective registration of births, defective allocation of causes of maternal deaths and disparity between the ascertained and registered causes of death. She tried to overcome these handicaps by a follow-up system of checking maternal deaths as far as circumstances could permit. By such a method she was able to investigate in detail 887 cases of maternal deaths which, according to her, gives 24 deaths per 1000 registered live births. She recognises, however, the intrinsic fallacy of such statistical averages and therefore prudently concludes that the true maternal mortality rate in Calcutta remains unknown.

Neal Edward's report is important not for its attempt to arrive at the rate of incidence of maternal mortality but for throwing fresh light on the causes that lead to maternal deaths. The tragedy is that nearly 80% of those are preventable, and according to Dr. Neal's standards the proportion of preventable cases is given as high as 96·3 per cent. This is apart from the chronic invalidism which frequent child-births impose upon the mother. About 3 million women are so disabled temporarily or permanently every year.[2]

Of the important causes of mortality Neal Edwards gives the following percentages :

Puerperal sepsis	30·9%	Abortion	0·5%
Anaema	20·3%	Labour accidents	0·39%
Toxaemias	20%	Associated diseases	0·5%
Haemorrhage	10·5%		

These causes of maternal deaths are in no way peculiar to Calcutta, and they may, in our view, be taken as applicable to other cities and provinces with probably minor variations.

What is really of great interest in the Report under review are some of the remarks of Neal Edwards which reveal some useful information. Selected at random, they are given below with our comments.

It is probable that the rural maternal mortality rates, except in areas where osteomalcia

1. Report of an enquiry into the causes of maternal mortality in Calcutta : *Health Bulletin*, No. 2. Price Re. 1/- or 1s 6d.

2 P. H. Commissioner's Report, 1935.

or anæmia are common, will be found to be lower than urban rates. She draws this inference from 31 maternal deaths out of 5807 births recorded by the three health units under the direction of the Rock-feller Foundation. If this is true, we have to revise our old superstition that the rural rates are always higher than the urban rates of maternal mortality.

While mortality rate in India is several times as high as in western countries, the proportion of deaths from sepsis is not more than a third of the total, and this in spite of the fact that a far larger number of deliveries are attended by untrained women who make no use of modern methods of asepsis and antisepsis. This, she explains, is due to a high degree of immunity to infection brought about by constant living under unhygienic conditions Another reason is that the relative rarity of pelvic disproportion among Calcutta woman contributes to easy and spontaneous deliveries in which there is no need for interference and not much of local trauma. To this, we may add a third reason : the village women are usually healthier than their sisters in towns living under conditions of chronic overcrowding and poverty.

Pregnancy anaemia is the second common cause of maternal mortality, and usually of the mixed type. She condemns the starvation treatment adopted for treating intercurrent diseases like dysentery or diarrhoea, and allocates many cases of pregnancy anaemia to the group which she rightly styles as "barley-water anaemia". This is apart from unbalanced and inadequate diet leading to a pathologic condition of blood.

The most striking thing about cases of eclampsia under enquiry is the almost total lack of ante-natal supervision, and the failure on the part of the patients and the physicians to realise the serious nature of the warning symptoms, such as œdema, headache and vomiting.

Warning haemorrhages were present in half the cases of death from placenta prævia, but in no case were adequate steps taken to ensure safe delivery.

Of the associated diseases, tuberculosis causes 41 per cent of all maternal deaths.

The problem of prevention of maternal deaths is, under the existing conditions in India, a difficult task. But difficult as it is, it has yet to be undertaken in view of the appalling toll which maternity levies on the young female lives in our country. Since universal hospitalization of pregnant women is inconceivable in a country of continental size, the only alternative remedies are the extension of the ante and postnatal clinics, and popularisation of domiciliary midwifery. The present provincial organisations, both Governmental and municipal, have done good work along these lines. But they must be extended rapidly to produce tangible results. Till this is accomplished we cannot escape the nightmare of maternal and infantile deaths which rudely disturb the family peace and prosperity.

CURRENT COMMENTS

Cod Liver Oil Supplies

"Cod liver oil is an important imported product and will probably be largely withdrawn due to shipping difficulties. I have no doubt that it can be replaced by fish liver oils of India some of which have a high vitamin content"[3]. Such is the opinion of Col. Chopra than whom there is no higher authority on the subject in our country. He has brought to light that some of the Bengal and Malabar fish could be made to yield a potent cod liver oil, in no way inferior to the Norwegian supply. That arrangements for sufficient supply of indigenous cod liver oil should be made early is obvious because of the wide prevalence of tuberculosis and food-deficiency diseases. But we do not see any serious attempts made in this direction, either by the provincial governments or the industrialists. The latter are too shy to initiate costly programmes, and they point to the fate of sugar industry whose further progress has come to a full-stop owing to heavy taxation and the non-granting of export facilities. If only the Bengal and Madras Governments would assure the prospective industrialists of exemption from taxation, we are quite sure that some of them would take up the large scale manufacture of cod-liver oil and thus meet the urgent need of this product. This is the least which the Government could do, if they themselves are not in a position to finance the project.

Wheat Diet in Leprosy

Cochrane and others[4] describe a series of experiments with wheat diet in painful and chronic nerve and bone pain in leprosy, and suggest that this should be tried as a therapeutic measure before deciding to operate for a painful neuritis. This of course does not improve the leprosy condition, but the authors have no doubt that the patients on wheat diet show a marked improvement in their general

3. *Ind. Med. Journal*, Feb. '40, p. 52.
4. *Ind. Jr. Med. Res.*, Apl. '40, p. 963.

condition. Thirty-seven cases in all have been observed by the authors, and in every case in which the wheat diet was consumed for three months and more, there has been either complete relief of distressing symptoms or they have been very considerably alleviated. Whole wheat was lightly ground on the currystone, cooked in the same way as rice and distributed to the patients to be eaten along with their usual curries. Chappaties were given in the evening. 21 ozs. of wheat *per diem* were given to each adult, and half of this quantity for boys. These experiments are interesting from the point of view of the fact, not often recognised by the physicians, that a simple and common-sense method of treatment is more fruitful of good results than expensive medication.

Toxemias of Pregnancy

This term now includes almost all the pathological deivations from health during pregnancy—from head-ache and nausea to albuminuria, nephritis and eclampsia. Thus its protean clinical manifestations make the question of a common etiology extremely complex, and even doubtful. No wonder, therefore, that many favourite opinions have been held and advocated by some, based partly on fancy and partly on limited investigations and personal experiences. Shiv Kumar and Vishwanath[5] would rather wish that the emphasis laid in some quarters on the importance of internal secretions in the aetiology of toxemias of pregnancy could reasonably be shifted to the plane of dietetics. Their argument is simple, and based on biochemical, dietetic and clinical studies of 75 cases of albuminuria during the last trimester of pregnancy. The diets of the cases under their observation were deficient in protective foods, particularly calcium and vitamins. This has been biochemically confirmed by the positive findings of hypocalcaemia and hypoproteinaemia, besides poor excretion or absence of vitamin C in the urine. These evidences prompt them to conclude that inadequate and unbalanced food may be the primary factor in the causation of toxemias of pregnancy, leading to a vicious circle of cause and effect and *vice-versa*. In their own words:

> The role of different vitamins in promoting the function of different glands has been brought out by recent investigations. The probable influence of vitamin B-1 on the optimal functioning of the pituitary as mentioned by Siddal (1938); the relationship between vitamin B-1 and thyroid activity as reviewed by Carpenter and Sharpless (1937); the presence of vitamin C in high concentration in the adrenal, the pituitary and the corpus luteum; the probable mode of action of vitamin D through parathyroid stimulation as shown by Taylor *et al.* (1932); the possible relationship of vitamin E to anterior hypophysis and thyroid as shown by Rowland and Singer (1936) and Singer (1936), and finally the relationship of vitamin E to gonadal activity, all point to the importance of the dietary factor in the ultimate causation and control of disorders like the toxaemias of pregnancy, be it through the endocrine mechanism or through factors outside the range of hormonic influence. The association of hypo-vitaminosis B-1 with the aetiology of toxaemias of pregnancy and the effect of vitamin D and calcium therapy in pregnancy toxaemias has been studied by Siddal (*loc. cit.* and Theobald (1937), respectively. In another paper Theobald (1936) associates the development of toxaemic symptoms with a meat diet, a disturbance of calcium metabolism, and an insufficient intake of vitamin B complex. The almost consistent finding in the cases studied of complete or almost complete disappearance of vitamin C in the urine, is a finding of great importance. Vitamin C is one of the most active catalytic and de-toxicating agents in the body. The human subject is incapable of synthesizing it in the body and it must be supplied through ingested food. Its deficiency in all probability plays an important role in the causation of toxaemias of pregnancy. Metabolic disorders of known and unknown aetiology injure important organs like the liver and kidneys. Infections and sub-infections complicate the picture of toxaemias and create the many sub-divisions of this disorder recognised in the text-books, but behind all these complications must be recognized the common factor of defective or disordered nutrition which in all probability sets the stage for toxaemias of pregnancy. The appreciation of this factor could help greatly in preventive efforts against these disorders.

Whether the defective diet is the cause of, or merely an associated but augmenting factor in, the toxaemias of pregnancy it is difficult to say in view of the incompleteness of the existing knowledge. But so far as preventive efforts are concerned there is little doubt that provision of adequate and well-balanced diet in the early months of pregnancy is one of the best protection against diseases associated during this period of physiological stress and strain in woman's life.

Foreign Qualifications

It is a strange spectacle to see that Indian medical qualifications are held at a discount both by the Government and Local Bodies like city corporations. Very recently the Karachi Corporation advertised for a Health Officer with a British D.P.H. qualification. Most of the honorary physicians and surgeons are required to possess a M.R.C.P. or F.R.C.S,

5. *Ind. Jr. Med. Res.*, Apl. '40, p. 979.

qualification for eligibility to such posts. Our Universities confer many higher degrees which are equal in value if not superior to their foreign counterparts. The Indian University standards are notoriously high, and the examinations extremely stiff. Yet almost every professional chair, and every high appointment in medical and public health departments are reserved for those with higher British medical qualifications. The result is, as our contemporary *The Medical Bulletin* points out, a brilliant M.D. or M.S. who cannot raise sufficient funds to proceed to Europe risks being elbowed out by an average M.R.C.P. or F.R.C.S. It further writes that this should never occur in future[7]. True, but if our future is like our past, how could we prevent the recurrence of such absurd anomalies? The remedy lies not in appeal to the authorities but in the political salvation of India. A profession which has meekly lived without resistance under the derogatory and dividing provisions of the Provincial Medical Acts, a profession which has slavishly submitted to the rule of the Indian Medical Council whose body is at Delhi while its soul is in London, is bound to reap the consequences of its own hypocrisy and cowardly submission. It is but a manifestation of the inexorable law of cause and effect. We have sowed the wind and are now reaping the whirlwind. We must remove the root causes. The primary cause is of course our political slavery. Its removal rests on the shoulders of our great leaders. The secondary cause is our professional disunity and disorganisation. Unless its members join the forces of organised medicine, and bring about a solid unity of ideals, thought and action, even our much wished political freedom would be of no avail. It is no use regretting the baneful effects if we do not consciously endeavour to remove their causes. Let us recognise that it is the reminiscent hand of the past that rest on the shoulders of the present, and that our future rests on how far we succeed in tackling the fundamental issues at stake.

[7] Editorial, *Med. Bull.*, May 18, '40, p. 864.

POST GRADUATE ARTICLE

Cardiology

• Dr. Jai Gopal

(17)

Treatment of cardiac failure when there is no immediate danger to Life

Rest

This means relief of cardiac load. Complete rest in bed must be enjoined till all symptoms of circulatory failure have disappeared and there is positive evidence of cessation of active infection. Unnecessary immobilisation in bed for a longer period than the actual requirements of the case deserve, in a young patient suffering from cardiac lesion, is harmful. In mitral valve lesion undue rest is followed by stenosis in young hearts; it is therefore essential not to impose undue restriction blindly simply as a precautionary measure.

In cardiac infarcts prolonged rest, both physical and mental, is essential for a period of two months, and it is for this reason that a physcian has humourously remarked that in such patients one would like a fracture of leg entailing immobilisation by splints and to minimise the revolt of the patient to get into active life at an early date.

When a normal daily activity is a load beyond the capacity of the heart, it should be curtailed and one day in bed per week should be enjoined besides increasing the daily hours of rest. Rest after a meal is a necessity and should be advised for an hour, so as to enable digestive processess to function properly.

Digitalis

It is only indicated when there is loss of compensation and the myocardial insufficiency is associated with dyspnœa, and other signs of failure. Its use in the absence of these is no longer required or may even do harm. Tr. digitalis in one drachm daily dose *i.e.*, in minims ten every four hours, should be prescribed. It is preferable to give it alone without combination with any other cardiac stimulant. Digitalis used alone does not raise the blood pressure, therefore the combination with nitrites is not necessary. The tincture, if possible, should not be diluted until the time of administration; otherwise loss of potency occurs from decomposition of its glucoside.

When digitalis is used in one drachm daily dose of tincture, Mackenzie finds that adequate concentration is reached after 5 to 8 drachms, but when larger doses are prescribed e. g., two drachms daily, the quantity requisite is smaller. In view of this, it must be borne in mind that doses smaller than a drachm per day may have no effect, *though the case may be a suitable one for cure.*

Once the improvement has been effected, subsequent maintenance dose to continue the beneficial effects may be about ten drops three to four times a day.

Exercise

Rest should be maintained till all signs of active infection have ceased and all the symptoms of failure have disappeared. The enlargement of liver sometimes persists and in one of my cases, it was palpable for several months after the improvement in circulation had been well advanced. Such symptoms should not preclude the patient from undertaking exercise as improvement is brought about by graduated, exercises. To prolong the rest unnecessarily is detrimental to the well-being by deteriorating the cardiac musculature, with the result the heart muscle is left capable of barely coping with a resting circulation. This not only leads to degeneration of myocardium, but the coronary vessels also cannot adapt themselves to an increased circulation in time of stress and strain and such persons who lead sedentary lives become subject to anginal attacks on exertion. As in an inflamed joint, the muscles of the limb deteriorate after being in splints for several weeks, and require movements and massage in order to retrain them to former muscular activity, similarly the myocardium that has adapted itself to circulation under conditions of rest in bed is barely capable of sustaining the circulation in upright posture soon after illness is over. The heart muscle requires retraining with graduated exercises. In bed-ridden case after all the signs of failure have disappeared, massage of the body and extremities should be commenced with a view to promote muscle tone and accelerate the flow of the body fluids and thereby to improve sleep. A light massage is a tonic to the nervous sytstem by its stimulating effect on the peripheral nerve endings. Later on, passive movements in bed to be followed by light active movements of various joints for the extremities in bed should be done slowly and gradually before the patient is allowed ultimately to be out of bed. John Parkinson has appropriately called the "breathlessness on exertion as nature's brake, when the heart is limited in power; hence exercise within limit imposed by breathlessness will do no harm."

In breathing exercises entailing deep breathing, the heart and the descent of diaphragm exerts a suction action on the venous circulation, particularly the portal, and hence veins are efficiently emptied in the right heart and stasis in the abdominal organs is relieved. Deep breathing not pushed to the extent of uneasiness in its performance, practised for five to ten minutes morning and evening, will be beneficial. These exercises relieve the pulmonary stasis and open out the reserve air capillaries of the lungs. It is commonly known that very few persons after the age of forty know how to take a deep breath, and this has an adverse effect on health by curtailing the reserve capillary area.

Sleep:—In a case of cardiac failure a quiet and peaceful sleep is a necessity, because it is nature's restorative period; and it should be not less than eight hours a day. Where it is less it should be induced by a dose of brandy taken at night. The use of morphia is not contraindicated, so long as there are no signs of pulmonary stasis. It may be combined with atropine which helps by lessening the bronchial secretion.

Its use in cardiac failure should be carefully watched as it is a condition of long duration and its continued administration may not addict the patient to its use and thus make him a confirmed morphomaniac with its attendant horrors and miserable life.

Anæmia:—The improvement of the quality of blood is necessary if improvement in a cardiac case is to be expected. In poor nutrition of the myocardium, the force of the beat falls, and in order to maintain the circulation efficiently and therefore to make up for the loss in beat, the heart will increase the number of beats; and we have studied already that tachycardia cannot be maintained indefinitely without wasting the cardiac potential. Therefore every effort should be directed to improve the poor condition of blood be it due to anæmia, poor nutrition and such chronic toxic conditions as diabetes, nephritis and the like.

Occupation:—Employments and occupations entailing moderate and mild exertion should be taken up by persons subject to cardiac disabilities. Clerical, tailoring and such other occupations not involving excessive strain may be adopted and it is advisable to spend one day in a week in bed.

Treatment of Special Conditions

Insomnia:—Heart failure, when of serious degree, is always associated with insomnia

and the sleep is unsatisfactory. The cause is defective blood supply of brain: and when the circulation has improved by the methods of treatment already mentioned, patient begins to get good sleep. If sleep is induced by the use of hypnotics and sedatives, cardiac rest is procured, hence there is desirability of obtaining more sleep than the customary quota, when it falls short of eight hours. Morphia is not contraindicated to procure sleep so long there is no depletion in the aeration field of the lungs. 1/4 to 1/6 grain may be given on alternate nights. Paraldehyde is another potent remedy and may be given in capsules containing thirty minims, in one drachm doses at bed time, and in case there is no response, an equal amount may be repeated two hours later on. Sodium bromide in twenty grain dose and medinal in 10 grain dose is equally efficacious. Some patients go to sleep well with a moderate dose of whisky.

Vomiting and Diarrhœa :—It is sometimes the result of irritating effect of digitalis and then its further use requires caution. If it is due to the congestion of gastric mucosa, the result of congestive failure, vomiting will stop after improvement has been effected by the use of digitalis.

Obstinate dropsy :—The accumulation of fluid in the tissues constitutes a load on heart, because it offers resistance to the circulation and unless measures are adopted drastically to relieve this, no improvement in failure can be expected. In many cases œdema is removed as soon as the patient is under digitalis effect. But in obstinate cases, the use of hydragogue purgatives is indicated to eliminate fluids. Blue pill at night followed by saline in the morning should be used for a week. Guy's pill consisting of blue pill, digitalis folia, and squill is a combination possessing diuretic, purgative and heart stimulating properties and is a trusted old favourite with physicians. Mild recipe consisting of pulvis jalap and comp. liquorice powder, each one drachm, may be given every night.

In atonic constipation, cascara, phenolphathalein, or enemas maybe given; and in spastic constipation, liquid paraffin acts as a mild laxative.

Diuretics :—These are indicated for the relief of œdema. Liquid extract or tincture of apocyanum and cannibinum in half drachm and 5 to 10 min. doses respectively is a safe diuretic. It is popularly known as vegetable trocar. It is a cardiac stimulant and irritates the kidney cells, and under its influence the amount of urine passed sometimes exceeds expectation. Theobromine sodium salicylate (Diuretin) in ten grain dose in tablet form three times a day is also a valuable drug.

Novasurol or Salyrgan :—is the most powerful diuretic that we possess. Owing to its toxicity, it should be avoided in renal disorders and nephritis. In patients with sclerotic kidneys, there is no response. It is given intravenously in 0·5 to 2·0 cc. doses and if there is leakage of drug in the subcutaneous tissue, it causes local necrosis. Daily administration of ammonium chloride in 60 grain doses for a few days beforehand helps the action, and sometimes the diuresis induced is so great that it may be troublesome and annoying to get up at night. Sometimes great improvement in the respiratory function follows the use of mercurial diuretics and hence their use in breathlessness due to cardiac failure. The adverse effects following their use are weakness, restlessness, mental confusion, and there may be coma and death. This is due to the excessive depletion of the fluids and salts and the urea contents of the blood is raised. Excessive thirst is the early indication and when suspected intravenous saline should be administered at once (J. Poll and J. E. Stern). The use of vitamin C, in the form of redoxan tablets increases the urinary output, hence the need for providing adequate supply of vitamin C in heart failure. Lemon or orange juice added to the dietary of the patient with diminished fluid intake is recommended. If inspite of all these measures the dropsy persists and is causing dyspnœa, the fluid may be withdrawn by tapping the abdomen, aspirating the chest if there is hydrothorax, and by punctures on the leg and feet. For the last purpose the patient is seated in an easy chair propped up on pillows for about twenty four hours, so as to allow all fluid to gravitate into the legs. The legs and feet are scrupulously cleaned with a mild, non-irritating soap after shaving the part, which is painted with weak iodine solution. The patient's skin is sterilised carefully. Small tiny punctures cutting the full thickness of the skin should be made with a knife in front of the leg and the dorsum of the foot, fifteen to twenty in number on each side. The leg is then placed in a sterilised tin. The patient keeps sitting for about two days, during which practically the whole fluid from the tissues will ooze out slowly and gradually. In this manner in one of my cases fifteen pints of fluid were withdrawn. It is important to impress the reader that this procedure should be undertaken under strict aseptic condition, as any departure is likely to be followed with disastrous results due to infection being supperadded: the fluid being a good culture media for the growth of bacteria. The surrounding and the clothings of the patient should be very clean in order to eliminate all risk of sepsis. The sepsis ones introduced finds favourable environment to develop and get established in a highly albuminous fluid and tissues which are already low in vitality. After two days, when the fluid has ceased to ooze out punctures are dressed up with a sterile gauze and wool and are bandaged up. The dressing sometimes gets soaked up through some of the leaking punctures, therefore it should be renewed twice daily. The patients after the removal of fluids feel very comfortable, the dyspnœa lessens, and the circulatory improvement in some cases is beyond expectation.

Increased Metabolic Rate :—In permanently established or chronic heart failure the basal metabolic rate is raised and in order to cope with this increasing demand an extra load is imposed on the heart, which is already crippled. Total thyroidectomy has been recommended with a view to lowering the needs of the body to a level at which the failing heart is capable of coping with. W.H. Parson and W.K. Purks (Annals of Surgery 1937 cv 722) in assessing the value of complete removal of thyroid gland in 226 cases by 55 separate surgeons, found great improvement in 31% and moderate improvement in 26%. The operative mortality rate being about 12%. Patients with serious valvular lesions and showing progessive failure are not suitable cases.

General Management

Diet :—In congestive heart failure, the appetite of the patient is poor, sometimes he is apt to suffer from digestive derangements, viz., vomiting and anorexia. A condition of cardiac cachexia and malnutrition is established. Sometimes the patient suffers from portal congestion of stomach, liver and spleen and vomiting is a constant feature. Predigested and liquid diet in small amounts at a time should be administered in order to avoid distension. The diet should be salt free when there is œdema, and the fluid intake should be restricted to not more than 30 oz. When there is no œdema, no definite rules can be laid down, but on broad principal his diet should be simple, easily digestible and he should take what he likes. Salt in moderation and glucose, besides protein diet such as milk is permitted. The meals should be taken dry and fluids given separately not with meals. Vitamins A and D should be prescribed to maintain body strentgh. Milk peptonised or malted, meat and meat extracts, eggs and egg flip with sherry, toast, rusks, biscuits, rice puddings and porridge, orange and lemon juice, cream, butter, weak tea, and alcoholic drinks in moderation are allowed.

Tea, tobacco and alcohol, particularly the red wines, are forbidden.

Weak and elderly patients should be given food with digestive enzymes, such as pepsin and pancrepatin and vegetarian patients be given Taka diastase and papain to help in the digestion of food.

From above it is seen that a person free from dropsy has wide range of articles of diet to choose from and the only caution that is necessary is, that large amount of food at any one time is not permissible, with a view not to overdistend the stomach, which may interfere with respiratory movements besides exerting pressure on heart. The diet should be such that it does not ferment. The total quantity of liquid intake should be limited, so as not to increase the volume of blood and the blood pressure. In tropical heat if the patient feels very thirsty, lime juice mixed with soda water be taken in sips. When plain milk does not agree, porridge is added, or toasted bread may be given.

Clothings :—Extremes of temperature should be avoided as these produce a depressing influence on the body. In winter flannel under garments and warm stockings should be worn and the patient should live in a warm, though well ventilated room.

In summer he should be kept in a cool room or in a passage where cool draught runs through and through.

Posture :—In all cases, where the pulse rate exceeds 90, the best course is to put the patient to bed. The pulse rate is lowest during recumbency, and it is essential to diminish the load on heart. In a case suffering from serious respiratory embarrassment and orthopnœa, the patient should be propped up in pillows in an easy chair and care should be taken that he does not slip down in bed in sleep, as these patients are sometimes unable to lift themselves up and dyspnœa may be severe enough to carry the patient away. A good plan is to place a small table in front of the patient and a pillow near its edge. The patient likes to lean forward and sometimes sleep comfortably thereon, by placing the forehead on folded hands resting on the pillows on the table in front.

[*This article concludes the series on Cardiology.* *Ed. I. M. J.*]

Our Amercian Letter

(From our own correspondent)

INHALATION DRUGS UNDER PRESSURE

Lieutenant Albert R. Behnke of the United States Navy Medical Corps outlined a new form of physical therapy to be known as oxygen pressure therapy before the meeting of the American College of Physicians at Cleveland, Ohio. The navy physicians have been studying three different types of physiological effects of increased barometric pressure, the effects of pressure *per se* and the effects of gases diffusing into the body under pressure. The gases included the diffusion of nitrogen and of oxygen under pressure, the oxygen studies yielding the most promising effects.

Inhalation of 99 per cent oxygen at atmospheric pressure, according to Behnke, brings about a significant increase in the oxygen pressure in tissues to render this inhalation drug of prime importance in the treatment of coronary heart disease. The tolerance to 99 per cent oxygen inhaled by healthy men is about seven hours, but decreasing the oxygen percentage to 70 renders oxygen breathing safe for prolonged periods of time. At a pressure of three atmospheres sufficient oxygen is taken up in physical solutions so that the tissue requirements for oxygen are satisfied without the reduction of the oxygen content of the red blood cells. This, it was pointed out, may turn out to be a highly significant discovery in the treatment of heart disease and other conditions where life is threatened by the failure of the mechanism that enables the red blood corpuscles to carry oxygen to the various tissues and organs in the body.

Until now only the red blood cells, through their haemoglobin, could supply oxygen, the vital one-fifth component of the air we breathe; through pressure, however, it is possible to supply oxygen directly to the tissues in need of it without the intervention of blood corpuscles.

At a pressure of four atmospheres, oxygen was found to induce convulsive seizures followed by apparent complete recovery. This fact suggests the possibility of utilizing oxygen in shock therapy applicable in treating certain types of schizophrenia.

The studies on the diffusion of nitrogen under pressure also brought interesting new data. Increased barometric pressure causes the nitrogen to be absorbed by the fluid and fat components of tissues in proportion to its partial pressure in the lungs. From nine to twelve hours is required for there-establishment of gaseous equilibrium.

HIGH BLOOD PRESSURE MORE FATAL TO PERSONS THAN CANCER

Of the 500,000 victims claimed annually in the United States by the diseases of the heart, kidney and the circulatory system, three-fourths, or 375,000, are due to high blood pressure, it was reported, by Drs. E. V. Allen and A. W. Adson of the Mayo Clinic, Rochester, Minn. On the basis of these figures, they reported, it is apparent that high blood pressure accounts for the deaths of three times as many people as cancer does. Surprisingly, only a small percentage of the money spent for investigation of cancer is spent for investigation of high blood pressure. The Mayo physicians described high blood pressure as the most serious disease in American life today.

Simple measures which are proving themselves effective weapons against angina pectoris and coronary thrombosis, the two most prevalent and fatal forms of heart diseases, were described before the annual Congress of the American College of Physicians by Dr. William J. Kerr of San Francisco, Professor of Medicine at the University of California Medical School. The measures consist of reduction of weight by diet and the use of an elastic abdominal support to enable the diaphragm to perform more properly its function as a valve in bringing blood back to the heart. By the use of an elastic abdominal support one can prevent pain which is the great handicap to such persons.

During 25 years of practice Kerr's experience with these methods has been the most gratifying. If such measures are used on persons before angina pectoris develops, one may be able to prevent the onset of this symptom complex and postpone the time when they might have complications. Most of these patients have obesity which causes increased curvature of all the normal curves of the spine and interferes with the movement of the diaphragm in normal inspiration.

IODINE AS BEST DRINK

It was testified in Federal court recently that "the best possible drink" in bootlegging days was produced from a pharmaceutical manufacturer's tincture of iodine. Then, as now, the average citizen was acquainted with tincture of iodine only as a brown liquid that comes in small bottles, neither looking nor smelling like a drink, emphatically labelled "Poison", and usually kept in the medicine chest for sterilizing wounds.

The witness explained, however, that the manufacturer's firm sold tincture of iodine in fifty or one hundred barrel lots, and that bootleggers prized it because it contained only a little dissolved iodine and all the rest was alcohol. It was quite simple, the witness pointed out, to distill off the alcohol - about 90 per cent of it could be recovered by the bootlegger - leaving the iodine behind. And if a trace of iodine did come through the still with the alcohol vapour it was converted chemically into a potassium salt known as a stimulant of the thyroid gland.

TRANSFUSION OF COLD BLOOD INTO MAN

It is still common clinical practice to maintain at body temperature fluids which are being administered intravenously. The problems introduced by the use of preserved blood for transfusions make imperative a study of the effects of injection fluids at room temperature or lower. The blood mixtures are usually stored in large flasks in volumes of 500 to 1,000 cc. at 5 c. When the blood mixture is required for transfusion, time may be consumed in warming such a quantity to body temperature or even to room temperature. Moreover, evidence has been presented by De Gowin, Harris and Plass to show that procedures which vary the temperature of different parts of a blood mixture tend to promote haemolysis.

Because of these considerations, a study of the effects of transfusion of unheated blood was made by DeGowin, Hardin and Swanson, Iowa City. A detailed study of ten patients who were given transfusions of blood mixtures varying from 25 to 15 C. and at velocities from 6·0 to 42·8 cc. per minute revealed no significant lowering in the body temperature, no consistent changes in blood pressure and no untoward clinical symptoms. Preserved blood has been administered without preheating in 568 cases with the reactions which could be attributed to the procedure. The practice of transfusing preserved blood cold is, according to the authors, a great conveyance in conserving time and prevents untoward reactions involved in the process of heating it. Parenteral fluids other than blood can be administered at room temperature with safety.

All the patients in the series either volunteered the information or affirmed when asked, that the vein into which the blood was running felt cool or cold but that this symptom was not such as to cause annoyance. When the blood was injected into the median basilic vein, palpation of the corresponding cephalic vein often gave a sensation of cold to the examiner. The blood was usually injected through a 20 gauge needle, although smaller needles were used for children.

Our Canadian Letter

(From Our Own Correspondent)

WAR AND MORTALITY TRENDS

For a series of years, Canada as well as most countries have been experiencing a continuous improvement in mortality, with 1938 and 1939 record as health years. If the war continues, a break must be expected in some of the hitherto favourable trends of international death rates.

Unfortunately, added to the direct harvest of death on the battle-field there is, in every war, additional heavy toll from diseases associated with the hardships to which both the military and the civil population are exposed. The Metropolitan Life Insurance Company in a recent publication directs the attention to this fact. Canada belongs to the six countries with record low death rates in 1938, namely, Canada, Denmark, the Netherlands, Norway, Australia, and New Zealand. Its death rate of 9·5 (per 1,000) war even lower than in the United States with a death rate of 10·6. The per cent change in Canada's death rate from 1929-33 to 1934-38 was a decrease of 5·8 per cent.

Even at best, and making all allowance for the great advances of modern medicine in recent decades, deaths from disease will inevitably run very high among the armed forces during any war, and will, furthermore, be seriously increased among the civilian population, living and working under handicaps imposed by state of war. A consequence of the World War was a material increase in the death rate from tuberculosis. Unfortunately, the Metropolitan Life Insurance Company points out in their survey, civilians are never wholly exempt from the direct impact of military operations, though promises have been made of moderation during the present struggle.

All in all, it is a foregone conclusion that the excellent record of diminishing death rates that has characterized the last few decades will suffer a serious setback in the warring countries during the current struggle, even if we are spared so devastating a visitation as the influenza pandemic of 1918-1919. Sparing this fatal disease would be the more important as,—as Dr. Thomas M. Rivers of the Rockefeller Institute told the Congress on Microbiology in New York recently, we have not as yet any effective weapon for either the prevention or the treatment of influenza.

INDUSTRIAL HYGIENE IN CANADA

An extensive study of gastrointestinal diseases among steel workers has been made by F.E.H. Day, Hamilton, Ont. During 1938 at a steel plant which had an average pay roll of 3,200 gastrointestinal diseases accounted for 2,377 days of lost time in contrast with 946 lost days occasioned by respiratory illnesses and 881 days by cardiovascular diseases. Steel workers present a particular problem in digestive ailments because of circumstances connected with their habits. Frequently the indigestion of a worker will improve satisfactorily until he starts night work, when indigestion immediately recurs. The very type of work, with its intense heat, gas and dust, predisposes to the occurrence of digestive disorders. All the employees carry lunches, which are eaten in a thirty minute rest period or, more often, a sandwich is snatched during the pause in the mill.

There have been no peptic ulcers among the 75 women employees, but in contrast to this 80 men with positive X-ray diagnosis, of ulcer are under observation; this gives an incidence of 2·16 per cent. But post-mortem observations show scars of ulcer in about 10 per cent of the cases. Therefore the incidence is probably five times the number under observation. Usually four or five duodonal ulcers are reported for one gastric ulcer. Non-operative treatment appears satisfactory to the author when it is realized that these patients are labourers who carry lunches, require large quantities of food and almost invariably are heavy users of alcohol and tobacco. The results in the surgical cases have not been as good. The only death associated with peptic ulcers was due to postoperative pneumonia.

TYPHOID CARRIERS IN NOVA SCOTIA

Mac Ritchie, Halifax, N. S., states that in Nova Scotia the average annual death rate from typhoid for the ten years previous to 1932 was 17·9 per

hundred thousand of population. For the five years from 1932 to 1936 the average rate was 4·2, the lowest of any province in Canada. From 1936 to 1938 the Department of Public Health, Nova Scotia, has been able to detect and place under a degree of control eight residual carriers, making a total of twenty now listed. Three carriers lived at different points within a radius of ten miles and during the preceding years 75 per cent of the cases reported in the province were from this section. A cholecystectomy was performed in all three cases.

EXPERIMENTAL DROWNING

Banting and his co-workers, from the University of Toronto, made new experiments with drowning. There are two types of drowning. In type 1, there is a period of apnea during which time there occurs an initial struggle followed by a cessation of movement and then swallowing takes place. When the stomach is distended a period of spasmic convulsions intervenes, followed by vomiting. This period of apnea is replaced by an interval during which from 2 to 10 gasps occur. Reflexes then disappear and somatic activity ceases.

In type 2 drowning the sequence of events in the apneic stage is practically the same as in type 1 but is not followed by gasping. Consequently little if any water enters the lung and death is due to obstructive asphyxia. In type 1 the blood pressure falls suddenly just before death to approximately zero; the cardiac rate likewise decreases suddenly. In type 2 the blood pessure falls more gradually, the cardiac rate decreases from 10 to 15 beats per minute. The necropsy in experimental drowning shows the lungs to be haemorrhagic and edematous. Much more fluid and froth are found in type 1 than in type 2 drowning. Invariably the right side of the heart is found to be greatly distended, the left contracted and empty.

For resuscitation, insufflation of 20 per cent carbon dioxide and 70 per cent oxygen has been found to be most effective, delivered at 3 litres per minute into the trachea. This gas mixture may be delivered through a nasal catheter into the pharynx. Epinephrine 40 minims (2·5 c.c.) of 1: 1,000 has been found to be indicated to assist the cardiac action. Atropine from 2 100 to 4/100 grain (0·0013 to 0·0026 Gn.) injected intravenously decreases the froth and edema in the lungs as well as increases the cardiac rate and removes inhibitory influences of the parasympathetic nervous system.

INDIAN MEDICAL NEWS

(From our own correspondent)

O. P. D. IN BENGAL STATE HOSPITALS

The Government of Bengal have ordered the closure of the out-patients on all gazetted holidays which roughly amount to 58 days in a year. It is hoped that the private hospitals also would follow suit. Emergency cases, however, will be received and treated in all hospitals even during the holidays.

PRIVATE PRACTICE OF GOVERNMENT MEDICAL OFFICERS IN N. W. F. P.

The Governor, North-West Frontier Province, has framed new rules entitled the N. W. F. P. Government Officers Private Practice Rules, 1940, which shall soon come into force.

The rules prohibit any medical officer, specialist or any other person employed in the medical service of the Provincial Government from engaging himself in private practice other than consultin practice.

These rules will not apply to women medical officers, medical officers stationed in the Political Agencies or Tribal Areas, and the families of Government servants.

SICKNESS INSURANCE

It is learned that the Government of India have asked the Provincial Governments to consult important associations of employers and workers to find out whether they are willing to accept the principle of compulsory contributions to the proposed sickness insurance fund. The opinion so elicited, together with the comments of the Provincal Governments, are required to be in the Government of India's hands by September next.

This question, it will be recalled, was discussed by the Labour Ministers' Conference early this year. The Conference realised that the problem was not so much lack of medical facilities as one of enabling the worker to maintain himself and his dependents during the periods when he is unable to work and earn a living because of sickness. The Conference came to the conclusion that, for this purpose, sickness benefit funds might be appropriate and that further action for setting up such funds might be considered after it had been ascertained how for employers and workmen were willing to contribute compulsorily to such funds. It is pointed out that contributions from the employees, who would be benefited by that schemes, and from the employers who have a responsibility in the matter of welfare of their workmen, are a necessary pre-requisite to the formation of any scheme of sickness benefit. In what proportion the two parties should contribute and what the contribution should be, are matters of detail which can be gone into once the parties concerned accept the principle of compulsory contribution.

HEALTH OF THE INDIAN ARMY

The Annual Report on the Health of the Army in India for the year 1938 has been issued in June 1940, and it is gratifying to note that the Health of the Army is regarded as distinctly satisfactory. The principal interesting features in connection with the Indian Army are: (1) Low admission rates for malaria: (2) the downward trend of sandfly fever; (3) the low incidence of cholera and (4) a slight increase in skin diseases. The sections dealing with malaria, enteric fevers and dysenteries are interesting both from academical and the Army's health point of view. Spraying played a large part in the anti-malarial measures undertaken in all commands. The standard treatment of malaria in the Army is as follows:

British Troops: Atebrin 0·3 gm. daily for 7 days; three days interval; Plasmoquine 0·03 gm. daily for 5 days.

Indian Troops: They receive only 0·02 gm. of Plasmoquine.

The incidence of enteric fever shows a significant reduction, and this is due chiefly, apart from improvements in water-supply, milk supplies and care of foodstuffs, to the yearly increasing care which is given to the production of efficient T.A.B. vaccine, to the high degree of protection so obtained and to the high percentage of personnel who accept voluntary inoculation. The method and dose of T.A.B. inoculation is to give 0·5 cc. and 1 cc. at a ten day interval for all primary inoculations, and 0·5 cc. at 12 monthly intervals in all cases of secondary inoculation. The report further mentions that owing to almost universal inoculation the employment of "H" suspension for agglutination tests was discontinued in July 1938, and from that date TO and AO suspensions were used and Felix technique of agglutination was employed. The significance of Vi strains of B. typhosus is being carefully studied at the army laboratory, and fuller account of the work under investigation is promised in the next year's report.

There seems to be a tendency to increase in respect of bowel diseases such as dysentery, diarrhoea, etc. The reason for this increase is said to be the continuance of insanitary conditions in the extra-cantonment areas. "Open grounds, nullahas and drains are" says the report "freely used as latrines. These afford every facility for flies to obtain easy access to fecal food and the dysenteric infection. Flies can be found breeding everywhere, massive reservoirs of infection abound in the population, and the insanitary habits complete the circle of infectivity from the sources of infection to the food of the troop."

Venereal diseases which gave an increase of 6·1 per 1000 the previous year have shown a further increase this year of 3 per 1000. The worst stations that were affected are as follows:

Calcutta	108	per 1000	Agra	62·2	per 1000.
Bombay	95·1	,, ,,	Lucknow	54·4	,, ,,
Madras	90·3	,, ,,	Cawnpore	53·5	,, ,,
Secunderabad	75·5	,, ,,	Lahore	51·6	,, ,,
	Quetta		52·1 per 1000		

As regards treatment the use of sulphanilamide group of drugs has been stabilized and extended. The report states that from the military point of view the sulphanamide group has changed the whole outlook of the disease, both for the patient and the doctor. It is also reported that the soldiers buy and use freely the sulphanamide group of drugs, and that therefore hospitalization has been markedly reduced, and in Lahore there had been no cases of relapse in nine months. This is with reference to gonorrhoea, while syphilis and soft sore were treated on the usual lines.

Effects of heat on the soldiers, both Indian and British, are discussed in section 24 of the report, and the report points out that the shibboleth of "exposure to sun means sunstroke" is rapidly dying out. It is now recognised that the best way of keeping men healthy in hot weather and preventing heat stroke is not to shut them up in barracks but that men should be fully occupied in the open, subject to common-sense precautions. It has been observed by the military doctors that there is a daily excess loss of salt in the perspiration which is not made good in the daily food, and that this if continued for 2 or 3 months produces a deleterious effect on the general tone of the body and particularly of the central nervous system. Hence the report advocates increased salt consumption during hot weather as a preventive against heat-stroke and more particularly heat exhaustion. There were 22 cases of heat stroke and 65 cases of heat-exhaustion with 6 deaths in each, during the period under report.

Altogether the report is exceedingly interesting and shows the extra-ordinarily efficient organisation for the care of the health of the Indian Army.

Till 1938, the report was issued by the P. H. Commissioner of India as Vol. 2 of his report. Now it is issued directly by the medical directorate of the Army Head Quarters. This change is quite in the fitness of things and the present report fully justifies this innovation.

QUININE SUPPLY

The Government of India have now taken steps to ensure that there shall be an adequate supply of quinine sulphate in India for all purposes for which Provincial and State Governments normally require it. Provision has also been made for estimated requirements of the defence services.

Enquiries made from the various Governments elicited the fact that all entertained some anxiety about future supplies of quinine and statistics were collected showing probable requirements over a period of years. The amount involved being substantial, the Government of India approached the authorities in the Netherlands East Indies and an agreement has now been concluded by which practically the amount required by Governments over the next four years will be shipped from Java during the next six months. Owing to the size of the contract, it has been impossible to arrange considerably reduced terms. Taking into account the reserve regularly maintained by the Government of India, it can now be stated that in the course of a few months, India will be in possession of ample supplies of quinine to meet any emergency.

Epitome of Indian Medical Literature

INDIAN MEDICAL GAZETTE, MAY 1940

Role of oblique osteotomy of upper end of femur in hip joint surgery—Kini—p. 257.

[1]An outbreak of epidemic dropsy—R. N. Chopra, C. L. Pasricha and K. Banerjee—261.

[2]Observations on amoebiasis and its treatment—Mayer—p. 262.

Quinine and Atebrin in the control of malaria—Lamprell—p. 266.

Anaemia in pregnant tea garden coolies—Hare—p.274.

[3]Treatment of scabies—Shephard—p.279.

A simple method of tomography—Visvanathan and Kesavaswamy—p. 279.

Streptococcus pyogenes in the throats of healthy individuals—Pasricha and Punja—p. 282.

Natural leptospiral infection in the rats population of Calcutta - Das Gupta - p. 284.

[1]An outbreak of epidemic dropsy is described by Chopra and others in this article. In this outbreak in one group 15, or 56% of 27 persons, were affected, whereas in a larger control group of about 100 individuals there were no cases of epidemic dropsy. The diet in the two groups was similar except that the mustard oil supplied to the two groups was from different sources. The mustard oil used for the cooking of the food for the affected group was found to contain approximately 3 to 5% argemone oil whereas the mustard oil in the control group was free from it. As soon as the outbreak was recognised, the use of mustard oil was stopped and no further cases occurred. The authors warn that false positive reactions may be given by certain other adulterants such as sesame oil and groundnut oil; they therefore advise that it is better to reject any oil giving even suspicious reactions.

[2]Max Mayer of Bikanir Hospital finds the incidence of amœbic infection, composed almost equally of rural and urban elements, to be 23·2%. Of the infected cases, 30% showed acute or subacute symptoms. In 32% of the infections pathologic conditions of liver, excluding liver abscess was found. Enterovioform (Ciba) produced a cure in all cases of acute amœbic dysentery (15 cases), in 86% of sub-chronic infections (11 of 13 patients) and in 83% of ch. cases (16 of 18 patients) when given for 10 days in a dose of 2 tablets (0·25 gm.) thrice daily after meals. The author concludes that a combined treatment by Enterioform and emetine over a period of 6 days is sufficient to deal with chronic asymtomatic amœbeasis.

[3]Shephard gives the following plan of treatment of scabies: (1) Paint the whole body below the neck with a 40% sol. of sodiumthiosulphate. (hypo) (2) Allow it to dry for 15 minutes. (3) Paint with a 5% sol. of hydrochloric acid over the hypo and allow it to dry for 15 minutes. (4) Repeat the above treatment after an interval of two hours and give fresh linen. The patient must not be given a bath before 12 hrs. after the conclusion of the second day's treatment. An interval of 3 to 5 days is allowed before commencing a second course. For children under 7 yrs. half the strength of the above solution only should be used. The author writes that this treatment has been rapidly and highly successful in popular type of scabies, whereas in the pustular type it has been found too irritating. For the later, ordinary sulphur ointment is applied, and when the pustules are dry the case is treated on the same lines as a papular case.

JR. OF I. M. A. MAY 1940

The education of a surgeon - Anderson - p. 319.

[4]Vitamin C and its relation to gastro-intestinal ulceration - Sharma - p. 355.

The sulphonamides - A survey - Misra - p. 358.

[5]The enlargement of the right clavicular lymph glands in cases of infantile liver - A. V. S. Sarma - p. 361.

[4]Sharma finds that the vitamin C content of urine in patients suffering from gastric and peptic ulcers is within normal limits on normal diet, and deficient in restricted diet. He is therfore of the opinion that the vitamin C deficiency is not likely to be an aetiological factor in the formation of peptic ulcer, but believes that adequate supply of vitamin C in patients suffering from gastric ulcer might help in its healing.

[5]The enlargement of lymph glands in the supraclavicular region, writes Sarma, may be due to the upward spread of the cirrhogenic toxins to the inferior deep cervical glands from the liver.

(This issue of the *Jr. of the I. M. A.* contains a supplement giving a comprehensive list of medical preparations, chiefly Indian and British, to replace some of the foreign ones not available in our country due to war conditions. Ed. *I. M. JY.*

MEDICAL BULLETIN MAY 4 AND 18, JUNE 1ST, 1940

Experiences with the lesions of the kidney and the ureter Kaikini - p. 295.

Basal metabolism - Parekh - p. 303.

Use indigenous drugs only - Bhat - p. 311.

The problem of trachoma - Chitnis - p. 338.

The treatment of cholera - Das - p. 348.

The vermiform appendix - Saldanha - p. 373.

[6]Calcium gluconate in testing of circulating time Mangaldas J. Shah—p. 381.

Consanguinity and marriage - De Sa - p. 384.

[6]Shah gives the results of his trial in 91 subjects to determine the circulation time by injecting calcium gluconate. His method is as follows: 5 cc. of a 10% calcium gluconate is injected as rapidly as possible. The needle used is wide-bore one so that the time taken to inject the material is lessened. The time between the beginning of injection and the patient's declaration of a hot sensation in the throat is taken as the circulation time. 70 subjects, who were free from cardiac disorders, showed an average time of 13·4 seconds. 21 cases of congestive cardiac failure showed an increase in the circulation time, the increase varying from 14 seconds to 73 seconds with a mean value of 27 seconds. The diseases in which the determination of the "circulation time" would be found useful are, according to the author: (1) Congestive cardiac failure to

find out the degree of failure (2) Congenital heart disease (3) Generalised œdema—to differentiate cardiac œdema from œdema due to other causes (4) To differentiate cardiac from bronchial asthma (5) Disturbances of thyroid secretion—in hyperthyroidism circulation time would be less, and in hypothyroidism it would be increased.

MEDICAL DIGEST, MAY 1940

Cardio-vascular emergencies in general practice - R. V. Sathe - p. 190.

The causes of foetal death - C. Baptista - p. 192.

[7]The anaemia of pregnancy, with case reports - R. H. Desai—p. 199.

[7]Desai believes that pregnancy anaemia is more common now than it was 15 yrs. ago. He attributes this disease to same kind of toxemia rather than dietetic deficiency.

CALCUTTA MEDICAL REVIEW APRIL 1940

Treatment of syphilis in pregnancy - Jyoti Dhar - p. 115.

A radiological study of the neoplasme of bone - Atul Rakshit - p. 424.

Treatment of hiccough - M. N. Basu - p. 430.

Treatment of herpes zoster - Jyoti Dhar - p. 433.

ANTISEPTIC, MAY 1940

[8]Rational intranasal medication - Kamath - p. 377.

Functional impotence - Govindaswamy - p. 385.

Spinal anaesthesia—Krup—p. 394.

Evolution of cataract surgery (Historical)—Bidyadhar—p. 400.

[9]Sulphanilamide in the treatment of certain eye conditions—Sanyal—p. 421.

[8]Kamath gives in this article a brief review of the outstanding advances in our knowledge of the new intra-nasal therapy. The main physiological function of the nasal chambers may be summed up in the term "air-conditioning". The author lays down the following the chief considerations in intra-nasal therapy: (1) The nasal and sinal mucosa must not be injured (2) The mucus film must be respected (3) Ciliary activity must not be hampered (4) The vasamotor balance of the turbinals must not be disturbed (5) The drug must be brought into contact with the whole area which requires to be treated and should remain in contact with it for a sufficient length of time.

[9]Sanyal gives case histories of 5 cases, out of 50 cases comprising of conjunctivities, keratoconjunctivitis, keratis, corneal ulcer and trachoma in which he has successfully used ureasulphazide ointment or lotion, and he therefore suggests this drug for local use in eye practice.

Special Journals

IND. JOUR. OF PEDIATRICS, APRIL 1940

[10]Anasale—Reddy—p. 57.

Defective children—Ronald—p. 70.

Diarrhoeaui infancy—Basu—p. 80.

[10]Reddy gives an account of disease of children, locally called as anasale, which is characterised by vomiting, intestinal colic, bronchial catarrh among infants between 2 and 4 months. These attacks are sudden, and the affected infants have a moribund appearance with a subnormal temperature. The aetiology is unknown, but the author suggests that such patients may be investigated with a view to ascertain whether these symptoms may be due to vitamin B_1 deficiency or imbalance of autonomous nervous system caused by nicotine intoxication.

IND. JOUR. OF OPHTHALMOLOGY APRIL 1940

Haemorrhagic glaucoma—Sheorey—p. 49.

Cataract—Its pathogenesis and treatment—Sathaye—p. 59.

Congenital retinae fold—Mehkri—p. 74.

[11]Hysterical ambilopia—Giridhar—p. 77.

[11]Giridhar gives an account of 3 cases of historical ambilopia, and he suggests psychotherapy as a means to relieve the temporary distress of an apparent loss of vision. Assurance by way of a simple treatment should by no means be neglected.

Abstracts from Foreign Medical Literature

Occipito-posterior Position—An Analysis of 106 cases. Proctor and Dickenson, *J.A.M.A.*, Feb. 3,1940, p. 381.

The authors conclude that the etiology of occipito-posterior position is dependant on the presence of abnormally directed forces during labour. This in turn is most often caused by the presence of some pelvic disproportion—usually of the simple flat variety. They stress on the three cardinal principles in treatment: awaiting dilatation, awaiting engagement, and awaiting rotation. The first two are fundamental in delivery from below, but the last, if not spontaneous, should be accomplished manually for the welfare of both mother and baby. The analysis of the authors' cases show: (1) Parity and age are not factors in this complication (2) Previous history of difficult labour is frequent (3) A moderate shortening of the true conjugate (4) Long labour and increased loss of blood are frequent.

Stomach Lavage in the Diagnosis and Control of Treatment of Tuberculosis. Stadnicheuk and others, *J.A.M.A.*, Feb. 24, 1940. p. 629.

After a thorough and exhaustive study of 1000 consecutive cases, the authors conclude that stomach lavage will find tubercle bacilli that become free in the larger bronchi in a manner not equalled by any other method used at present. Cases negative to this test are those with encapsulated lesions and extra-pulmonary tuberculosis. They maintain that this method should be adopted as the ultimate standard for apparent negativity or apparent cure of patients having had or suspected of having tuberculosis. It is also an excellent method to control the efficiency of collapse therapy. No patient with clinical signs of tuberculosis who has negative sputum should be considered negative until gastric aspiration has yielded negative results.

Mechanism of Action of Sulphanilamides. Lockwood and Lynch, *J.A.M.A.*, March 16, 1940, p. 935.

Concluding the results of their experiments the authors are of opinion that the drug has both a bacteriostatic and a limited bactericidal action in vitro or H. streptococci, staphylococci, pneumococci and B. coli. The magnitude of this effect is dependent principally on (a) concentration of the drug and (b) the concentration of peptone in the culture mediums. It is the

authors' belief that sulphanilamide acts by interfering with the nutritional requirements of susceptible bacteria and that the bacteria can die out in a phagocyte-free environment through starvation and autolysis. The addition of peptone to mediums such as serum supplies such an excess of nitrogen that the bacteriostatic action is to a large degree inhibited.

Iodism. Barker and Wood. *J.A.M.A.*, March 23, 1940, p. 1029.

The authors give details of seven cases of severe febrile iodism in their series of 400 patients with hyperthyroidism treated with iodine. The common symptoms observed were: fever, cutaneous eruptions, coryza, pharyngitis, enlargement of the lymph nodes, and eosinophilia. The continuation of iodine after development of marked symptoms of idiosyncrasy may be extremely dangerous.

Cause of Breech presentation. Keith Vertan, *Lancet*, March 30, 1940, p. 595.

The author maintains that causes given in text books are rarely encountered. He therefore analysed 969 cases of breech deliveries and came to the following conclusions:

(1) We have been wrong in teaching that the cause of the breech presentation at term is a pelvic anomaly which prevents the head from entering. Such conditions cause the oblique lie.

(2) The cause of the breech presentation persisting till term is the failure of the foetus to undergo spontaneous cephalic version.

(3) The foetus is prevented from undergoing version by its extended attitude in 37·1% of cases, by the presence of another foetus in the uterus in 23·6% of cases, and by prematurity in 9%.

(4) In 22·9% of cases no cause could be traced.

(5) The percentage of cases in which placenta previa is associated is so small as to make it doubtful if this can be called an aetiological factor.

(6) For the same reason contracted pelvis cannot be regarded as an aetiological factor.

(7) Pelvic tumours, abnormally shaped uterus, hydrocephalus, hydramnios and anencephaly are so rare as to be of little significance.

Sterilization of Syringes and Needles. Bigger, Blacklock and Parish. *B. M. J.*, Apl. 6, 1940, p. 582.

The authors say that every medical man should have two set of syringes—one for injection of therapeutic products into healthy tissues, and the other reserved solely for the withdrawal of pathological fluids.

When syringes and needles have been sterilized droplet infection from the patient or attendants should be avoided, as well as contamination by unsterile hands or dressings.

The best and simplest means of sterilizing syringes is by heat, as the ideal antiseptic solution for this purpose is not yet available.

Syringes for Inoculation: In clinics and hospitals the autoclave should be used for sterilization. If more than one inoculation has to be made, a fresh sterile needle for each patient should be used. This procedure is impracticable for general practitioners. They are advised to boil syringes and needles immediately before use for 15 minutes or longer in water, or, still better, in 1% phenol. They are also advised to use single dosed instead of multiple-dose containers of biological products as there is always some risk of contaminating the latter.

Syringes for withdrawing pathological fluids. If autoclaving is impossible the authors advise boiling in a 5% phenol solution for more than half-an-hour or longer. Since the disinfectant used may interfere with the bacteriological examination it is advisable to boil them again in fresh water before final use.

Rectal Administration of Sulphanilamide. Marine and Others. *Med. Times, N. Y.*, Mar. p. 110.

They write that sulphanilamide administered by rectum in solution or suppository is absorbed. Blood concentration tests indicated that better absorption occurs when solutions are employed. The rectal route is recommended whenever the drug cannot be given by mouth. No harmful effects were observed in the mucus membrane of the normal rectum and colon.

Eclampsia and Allergy. Yamada. *Japanese J. of Obst. and Gynec.*, Feb. 1940, pp. 2 21.

The author gives an exhaustive experimental work done by him to ascertain the relationship between the origin of eclampsia and allergy. He finally concludes that eclampsia is due to the result of allergic reaction.

Is Myopia a Deficiency Disease? H. Miller. *Am. Jr. of Ophth.*, Mar. 1940, p. 296.

After reviewing the incidence of myopia in many countries the author concludes that a large percentage of myopic people are prone to discard fats and other essential foods from their diet. At least 8% of fat in the diet is essential for health and growth because of the vitamin A these fats contain and also as a solvent for carotenes. Clinical and experimental evidences are given by the author to show that myopia is found where such food elements are lacking in the diet.

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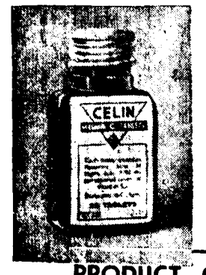

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